



**Quarterly Progress Report #27**  
**October/November/December 2019**

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To:	Brian Kelly, U.S. EPA Christopher Black, U.S. EPA Richard Clarizio, U.S. EPA Lori Kozel, Tetra Tech Licia Yangouyan, City of Dearborn Alan Loebach, City of Dearborn Jeff Watson, City of Dearborn	Ref. No.: 048041
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*M.T.*

From:	Glenn Turchan, Project Coordinator/lj/27	Date:	January 15, 2020
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CC:	Anastasia Bremmer, Ford Bert Richnafsky, Weavertown Grant Gilezan, Dykema Gossett
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Re:	<b>Removal Action Quarterly Progress Report #27</b> <b>(October, November, and December 2019)</b> <b>(Pursuant to Section 92 of the AOC and Section 3.2 of the</b> <b>Removal Action Work Plan)</b> <b>Former Dearborn Refining Site</b> <b>Dearborn, Michigan</b>
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**A. Due Date: January 15, 2020**

**B. Previous Activities – October/November/December**

- Re-submitted the 2007 Removal Action Work Plan to Tetra Tech, Inc. (Tetra Tech) on October 8, 2019, as requested.
- Submitted the Dearborn Refining Site (Site) Quarterly Progress Report #26 for July, August, and September 2019 to the United States Environmental Protection Agency (U.S. EPA), Tetra Tech, and the City of Dearborn on October 15, 2019.
- Participated in a Skype meeting/conference call with the U.S. EPA, Tetra Tech, and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) (formerly the Michigan Department of Environmental Quality) on October 15, 2019. Tetra Tech prepared a presentation for the Skype meeting/conference call and presented the presentation during the meeting.
- Received a copy of Tetra Tech's presentation on October 15, 2019.
- Received questions/comments regarding methane from the U.S. EPA on October 16, 2019.



- Coordinated off-Site disposal of investigative derived waste (drums were removed on November 4, 2019).
- Compiled and submitted the information requested by Tetra Tech on October 15, 2019 to the U.S. EPA and Tetra Tech on November 13, 2019.
- Notified the U.S. EPA and Tetra Tech on November 19, 2019 that the October, November, and December 2019 quarterly monitoring event would be completed on November 26, 2019.
- Prepared and submitted the Response to Comments Memorandum to the U.S. EPA and Tetra Tech on November 19, 2019. The Response to Comments Memorandum presents the responses to the U.S. EPA August 28, 2019, August 29, 2019, and October 16, 2019 comments/questions and to questions included in the October 15, 2019 Tetra Tech presentation.
- Participated in a conference call with the U.S. EPA, Tetra Tech, and EGLE on November 20, 2019.
- Completed the October, November, and December 2019 quarterly operation, maintenance, and monitoring (OMM) activities on November 26, 2019. The inspection forms are presented in Attachment A. Water levels for the OMM wells are presented in Table 1. Light non-aqueous phase liquid (LNAPL) observations for all Site and sentry wells are presented in Table 2. Gas probe pressure readings are presented in Table 3. The groundwater levels, LNAPL observations, and gas probe readings are presented on Figure 1. The methane monitoring results are presented in Table 4 and on Figure 2.
- The City of Dearborn completed the quarterly Site inspection on December 6, 2019. The inspection forms and photographs are presented in Attachment A. The inspection identified existing damage to the portion of the fence located at the northern property boundary. The inspection forms identified that there was no breach associated with the damage.
- Received a copy of the Ferrous Processing and Trading Company (FPT) Baseline Environmental Assessment (BEA) Report prepared by Billings Industrial Group, Inc. and dated July 2000 and a copy of the FPT Due Care Plan (DCP) prepared by CJF Associates, LLC and dated January 2018. The documents were obtained through a Freedom of Information Act (FOIA) request.

## C. Site Sample Analytical Data

- Air Monitoring:
  - Methane monitoring
- Waste Compatibility Analyses:
  - None
- Waste Characterization Analyses:
  - None
- Soil and Groundwater Investigation:
  - None



- ACM Abatement:
  - None

## **D. Document Submittals/Work Plan Modification**

- Submittals:
  - 2007 Removal Action Work Plan to Tetra Tech on October 8, 2019
  - Quarterly Progress Report #26 to the U.S. EPA, Tetra Tech, and the City of Dearborn on October 15, 2019
  - Requested information to the U.S. EPA and Tetra Tech on November 13, 2019
  - Response to Comments Memorandum to the U.S. EPA and Tetra Tech on November 19, 2019
- Revision Requests:
  - None
- Work Plan Revisions:
  - None

## **E. Issues Identified**

- New Issues and Planned Resolution:
  - The U.S. EPA provided comments regarding the Site methane results on October 16, 2019. A Response to Comments Memorandum was submitted to the U.S. EPA and Tetra Tech on November 19, 2019 to respond to these comments as well as prior methane comments received via emails, during conference calls, and in the Tetra Tech October 15, 2019 presentation. The U.S. EPA is reviewing the Response to Comments Memorandum.
- Previously Identified Issues Pending Resolution:
  - In a letter dated December 7, 2018, the current Site owner (City of Dearborn) provided notice of its intention to sell the Site to The Soave Real Estate Group, Inc., which upon acquiring the Site plans to build a manufacturing facility subject to the recorded Restrictive Covenant and the remaining Administrative Settlement Agreement and Order on Consent (AOC) Site work requirements. No subsequent communications from the City of Dearborn regarding the sale of the Site have been received.
  - Methane vapor  
Methane readings were collected on November 26, 2019 as part of the October, November, and December 2019 quarterly monitoring event. The November 26, 2019 methane monitoring results are presented on Figure 2. All methane results are presented in Table 4.



The Site has Passive Ventilation Barriers (PVBs) constructed at the northern and southern Site boundaries, as presented on Figure 2. The PVBs passively vent methane on Site prior to the property boundaries. Methane is generally not detected or measured at very low detections at the eastern and western Site boundaries during the methane monitoring events due to the Site's geology (e.g., clay present near the ground surface in either direction).

The highest November 26, 2019 methane reading detected at the western-most Site boundary was 0.1 % at GP8-12. Methane was not detected at the remaining western-most locations.

Methane was not detected at the eastern-most Site boundary methane monitoring locations on November 26, 2019.

The northern PVB has been successful at controlling the methane at the northern Site boundary. Methane was not detected at the northern-most Site methane monitoring locations on November 26, 2019.

The southern PVB is controlling methane migrating from the central portions of the Site. Methane is intermittently detected in the sentry wells during the methane monitoring events. Methane was not detected in the sentry wells on November 26, 2019.

It should be noted that the January 2018 DCP prepared for the FPT property by CJF Associates, LLC specifically addresses methane on the FPT property. Other sources of methane present on the FPT property include the backfill (e.g., construction spoils, construction debris, and refuse) for the clay pit(s) present on the FPT property.

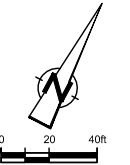
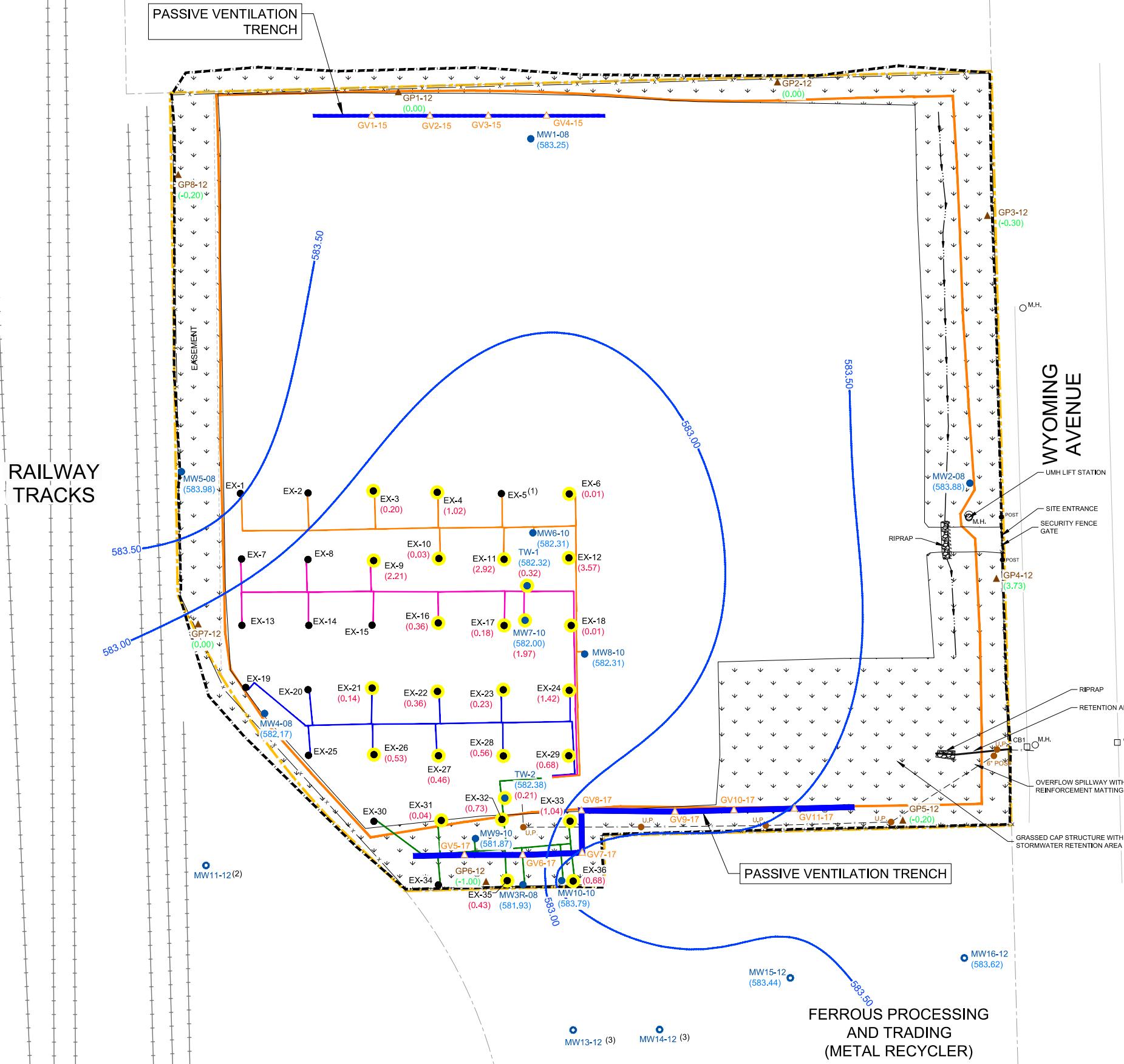
The November 26, 2019 methane detections appear to be generally consistent with prior methane data fluctuations.

Methane will continue to be monitored quarterly and the results will be reported to the U.S. EPA in the Quarterly Progress Reports.

## **F. Current/Projected Work – January/February/March 2020**

- Submit Quarterly Progress Report #27 for October, November, and December 2019.
- OMM activities, including:
  - Quarterly monitoring of water and LNAPL levels
  - Quarterly methane and gas probe pressure monitoring
- Scheduling:
  - Schedules to adhere to the April 17, 2013 Project Schedule (Revision 11) as approved by the U.S. EPA on May 22, 2013

**LIBERTY TRUCK SERVICES  
(TRUCK REPAIR)**



# LIBERTY TRUCK SERVICES (TRUCK REPAIR)

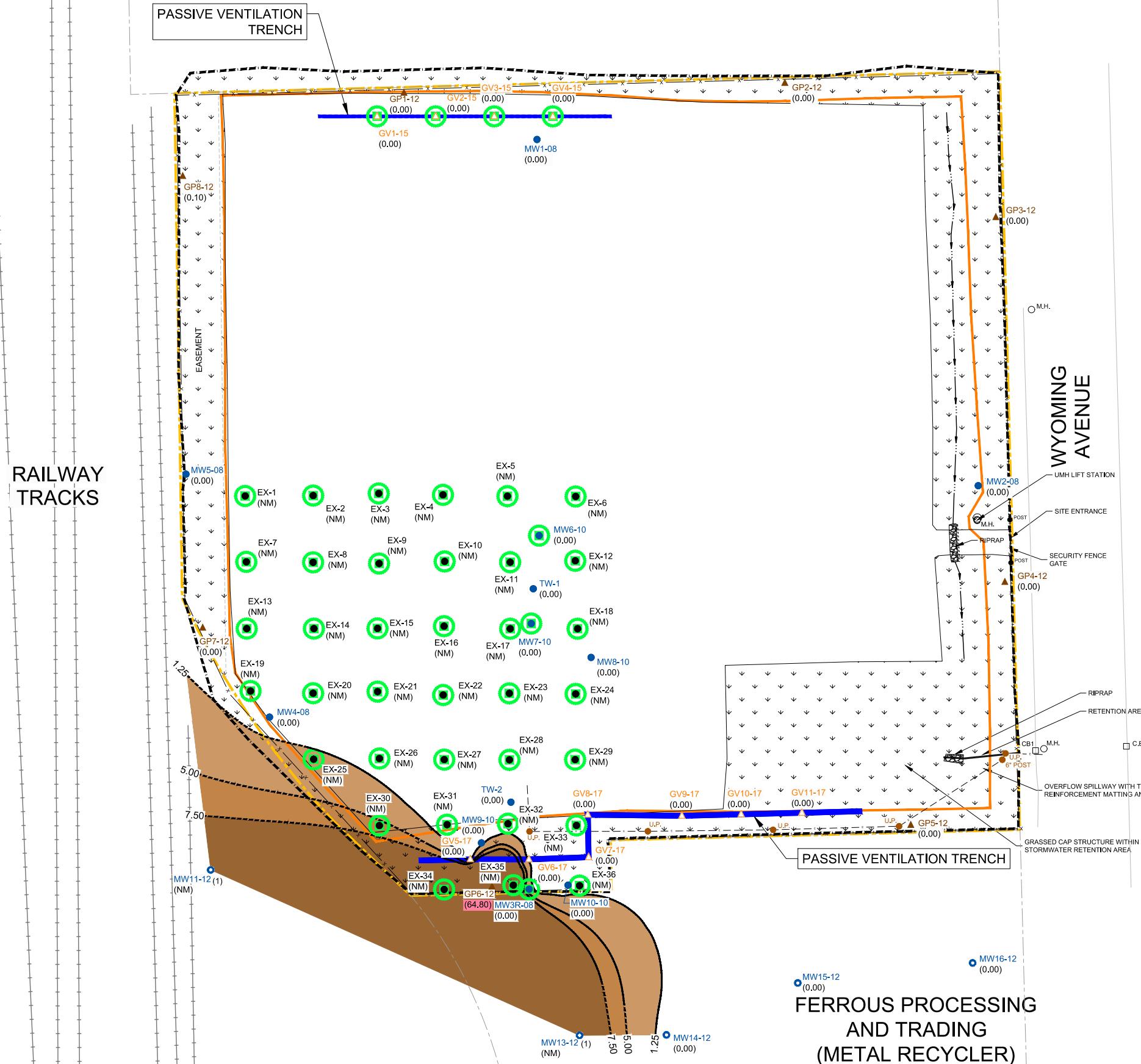


Table 1

**Hydraulic Measurements**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW1-08</b>	4/24/2013	592.55	--	8.60	--	--	583.95	583.95
<b>MW1-08</b>	5/23/2013	592.55	--	8.62	--	--	583.93	583.93
<b>MW1-08</b>	6/20/2013	592.55	--	8.46	--	--	584.09	584.09
<b>MW1-08</b>	7/25/2013	592.55	--	7.80	--	--	584.75	584.75
<b>MW1-08</b>	8/29/2013	592.55	--	8.77	--	--	583.78	583.78
<b>MW1-08</b>	9/27/2013	592.55	--	9.76	--	--	582.79	582.79
<b>MW1-08</b>	10/22/2013	592.55	--	9.97	--	--	582.58	582.58
<b>MW1-08</b>	11/21/2013	592.55	--	10.61	--	--	581.94	581.94
<b>MW1-08</b>	12/11/2013	592.55	--	10.73	--	--	581.82	581.82
<b>MW1-08</b>	1/15/2014	592.55	--	10.47	--	--	582.08	582.08
<b>MW1-08</b>	2/26/2014	592.55	--	10.56	--	--	581.99	581.99
<b>MW1-08</b>	3/25/2014	592.55	--	9.89	--	--	582.66	582.66
<b>MW1-08</b>	5/5/2014	592.55	--	9.27	--	--	583.28	583.28
<b>MW1-08</b>	9/19/2014	592.55	--	7.98	--	--	584.57	584.57
<b>MW1-08</b>	12/11/2014	591.41	--	8.90	--	--	582.51	582.51
<b>MW1-08</b>	3/9/2015	591.41	--	9.86	--	--	581.55	581.55
<b>MW1-08</b>	6/1/2015	591.41	--	8.75	--	--	582.66	582.66
<b>MW1-08</b>	8/5/2015	591.41	--	8.56	--	--	582.85	582.85
<b>MW1-08</b>	1/8/2016	591.41	--	9.09	--	--	582.32	582.32
<b>MW1-08</b>	3/18/2016	591.41	--	8.31	--	--	583.10	583.10
<b>MW1-08</b>	5/26/2016	591.41	--	7.93	--	--	583.48	583.48
<b>MW1-08</b>	8/12/2016	591.41	--	9.32	--	--	582.09	582.09
<b>MW1-08</b>	12/9/2016	591.41	--	8.19	--	--	583.22	583.22
<b>MW1-08</b>	2/27/2017	591.41	--	7.83	--	--	583.58	583.58
<b>MW1-08</b>	6/19/2017	591.41	--	7.32	--	--	584.09	584.09
<b>MW1-08</b>	9/13/2017	591.41	--	8.65	--	--	582.76	582.76
<b>MW1-08</b>	11/16/2017	591.41	--	9.19	--	--	582.22	582.22
<b>MW1-08</b>	3/22/2018	591.41	--	7.11	--	--	584.30	584.30
<b>MW1-08</b>	5/17/2018	591.41	--	5.95	--	--	585.46	585.46
<b>MW1-08</b>	9/19/2018	591.41	--	8.81	--	--	582.60	582.60
<b>MW1-08</b>	11/29/2018	591.41	--	6.88	--	--	584.53	584.53
<b>MW1-08</b>	3/21/2019	591.41	--	7.68	--	--	583.73	583.73
<b>MW1-08</b>	6/5/2019	591.41	--	6.24	--	--	585.17	585.17
<b>MW1-08</b>	9/9/2019	591.41	--	8.48	--	--	582.93	582.93
<b>MW1-08</b>	11/26/2019	591.41	--	8.16	--	--	583.25	583.25
<b>MW2-08</b>	4/24/2013	591.76	--	7.09	--	--	584.67	584.67
<b>MW2-08</b>	5/23/2013	591.76	--	8.23	--	--	583.53	583.53
<b>MW2-08</b>	6/20/2013	591.76	--	8.18	--	--	583.58	583.58
<b>MW2-08</b>	7/25/2013	591.76	--	6.70	--	--	585.06	585.06
<b>MW2-08</b>	8/29/2013	591.76	--	8.04	--	--	583.72	583.72
<b>MW2-08</b>	9/27/2013	591.76	--	8.58	--	--	583.18	583.18
<b>MW2-08</b>	10/22/2013	591.76	--	8.91	--	--	582.85	582.85
<b>MW2-08</b>	11/21/2013	591.76	--	9.17	--	--	582.59	582.59
<b>MW2-08</b>	12/11/2013	591.76	--	9.10	--	--	582.66	582.66
<b>MW2-08</b>	1/15/2014	591.76	--	7.56	--	--	584.20	584.20
<b>MW2-08</b>	2/26/2014	591.76	--	7.85	--	--	583.91	583.91
<b>MW2-08</b>	3/25/2014	591.76	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW2-08</b>	5/5/2014	591.76	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW2-08</b>	9/19/2014	591.76	--	7.80	--	--	583.96	583.96
<b>MW2-08</b>	12/11/2014	590.64	--	8.06	--	--	582.58	582.58
<b>MW2-08</b>	3/9/2015	590.64	--	8.72	--	--	581.92	581.92
<b>MW2-08</b>	6/1/2015	590.64	--	7.52	--	--	583.12	583.12
<b>MW2-08</b>	8/5/2015	590.64	--	8.47	--	--	582.17	582.17
<b>MW2-08</b>	1/8/2016	590.64	--	7.47	--	--	583.17	583.17
<b>MW2-08</b>	3/18/2016	590.64	--	6.32	--	--	584.32	584.32
<b>MW2-08</b>	5/26/2016	590.64	--	8.13	--	--	582.51	582.51
<b>MW2-08</b>	8/12/2016	590.64	--	9.04	--	--	581.60	581.60
<b>MW2-08</b>	12/9/2016	590.64	--	7.21	--	--	583.43	583.43

Table 1

**Hydraulic Measurements**  
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**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW2-08</b>	2/27/2017	590.64	--	7.38	--	--	583.26	583.26
<b>MW2-08</b>	6/19/2017	590.64	--	8.27	--	--	582.37	582.37
<b>MW2-08</b>	9/13/2017	590.64	--	9.12	--	--	581.52	581.52
<b>MW2-08</b>	11/16/2017	590.64	--	9.27	--	--	581.37	581.37
<b>MW2-08</b>	3/22/2018	590.64	--	7.67	--	--	582.97	582.97
<b>MW2-08</b>	5/17/2018	590.64	--	6.34	--	--	584.30	584.30
<b>MW2-08</b>	9/19/2018	590.64	--	9.05	--	--	581.59	581.59
<b>MW2-08</b>	11/29/2018	590.64	--	1.32	--	--	589.32	589.32
<b>MW2-08</b>	3/21/2019	590.64	--	7.25	--	--	583.39	583.39
<b>MW2-08</b>	6/5/2019	590.64	--	7.71	--	--	582.93	582.93
<b>MW2-08</b>	9/9/2019	590.64	--	9.01	--	--	581.63	581.63
<b>MW2-08</b>	11/26/2019	590.64	--	6.76	--	--	583.88	583.88
<b>MW3R-08</b>	4/24/2013	589.11	4.90	4.90	trace	584.21	584.21	584.21
<b>MW3R-08</b>	5/23/2013	589.11	6.51	6.51	trace	582.60	582.60	582.60
<b>MW3R-08</b>	6/20/2013	589.11	--	5.60	--	--	583.51	583.51
<b>MW3R-08</b>	7/25/2013	589.11	--	4.71	trace	--	584.40	584.40
<b>MW3R-08</b>	8/29/2013	589.11	--	7.34	trace	--	581.77	581.77
<b>MW3R-08</b>	9/27/2013	589.11	--	7.83	--	--	581.28	581.28
<b>MW3R-08</b>	10/22/2013	589.11	--	8.50	trace	--	580.61	580.61
<b>MW3R-08</b>	11/21/2013	589.11	--	8.67	trace	--	580.44	580.44
<b>MW3R-08</b>	12/11/2013	589.11	--	8.44	trace	--	580.67	580.67
<b>MW3R-08</b>	1/15/2014	589.11	--	6.78	--	--	582.33	582.33
<b>MW3R-08</b>	2/26/2014	589.11	--	7.15	--	--	581.96	581.96
<b>MW3R-08</b>	3/25/2014	589.11	--	6.19	--	--	582.92	582.92
<b>MW3R-08</b>	5/5/2014	589.11	--	6.13	--	--	582.98	582.98
<b>MW3R-08</b>	9/19/2014	589.11	--	5.39	--	--	583.72	583.72
<b>MW3R-08</b>	12/11/2014	587.87	--	6.08	trace	--	581.79	581.79
<b>MW3R-08</b>	3/9/2015	587.87	--	6.37	--	--	581.50	581.50
<b>MW3R-08</b>	6/1/2015	587.87	--	5.10	--	--	582.77	582.77
<b>MW3R-08</b>	8/5/2015	587.87	--	6.15	--	--	581.72	581.72
<b>MW3R-08</b>	1/8/2016	587.87	--	5.65	--	--	582.22	582.22
<b>MW3R-08</b>	3/18/2016	587.87	--	5.22	--	--	582.65	582.65
<b>MW3R-08</b>	5/26/2016	587.87	--	5.87	--	--	582.00	582.00
<b>MW3R-08</b>	8/12/2016	587.87	--	7.19	--	--	580.68	580.68
<b>MW3R-08</b>	12/9/2016	587.87	--	5.61	--	--	582.26	582.26
<b>MW3R-08</b>	2/27/2017	587.87	--	5.20	--	--	582.67	582.67
<b>MW3R-08</b>	6/19/2017	587.87	--	5.90	--	--	581.97	581.97
<b>MW3R-08</b>	9/13/2017	587.87	--	6.60	--	--	581.27	581.27
<b>MW3R-08</b>	11/16/2017	587.87	--	6.50	--	--	581.37	581.37
<b>MW3R-08</b>	3/22/2018	587.87	--	5.51	--	--	582.36	582.36
<b>MW3R-08</b>	5/17/2018	587.87	--	3.14	--	--	584.73	584.73
<b>MW3R-08</b>	9/19/2018	587.87	--	7.24	--	--	580.63	580.63
<b>MW3R-08</b>	11/29/2018	587.87	--	4.44	--	--	583.43	583.43
<b>MW3R-08</b>	3/21/2019	587.87	--	5.46	--	--	582.41	582.41
<b>MW3R-08</b>	6/5/2019	587.87	--	4.38	--	--	583.49	583.49
<b>MW3R-08</b>	9/9/2019	587.87	--	6.90	--	--	580.97	580.97
<b>MW3R-08</b>	11/26/2019	587.87	--	5.94	--	--	581.93	581.93
<b>MW4-08</b>	4/24/2013	591.76	--	8.78	--	--	582.98	582.98
<b>MW4-08</b>	5/23/2013	591.76	--	8.71	--	--	583.05	583.05
<b>MW4-08</b>	6/20/2013	591.76	--	8.15	--	--	583.61	583.61
<b>MW4-08</b>	7/25/2013	591.76	--	7.47	trace	--	584.29	584.29
<b>MW4-08</b>	8/29/2013	591.76	--	9.97	--	--	581.79	581.79
<b>MW4-08</b>	9/27/2013	591.76	--	10.21	--	--	581.55	581.55
<b>MW4-08</b>	10/22/2013	591.76	--	10.35	--	--	581.41	581.41
<b>MW4-08</b>	11/21/2013	591.76	--	11.42	--	--	580.34	580.34
<b>MW4-08</b>	12/11/2013	591.76	--	11.00	--	--	580.76	580.76
<b>MW4-08</b>	1/15/2014	591.76	--	10.12	--	--	581.64	581.64
<b>MW4-08</b>	2/26/2014	591.76	--	9.94	--	--	581.82	581.82

Table 1

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**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW4-08</b>	3/25/2014	591.76	--	8.84	--	--	582.92	582.92
<b>MW4-08</b>	5/5/2014	591.76	--	8.80	--	--	582.96	582.96
<b>MW4-08</b>	9/19/2014	591.76	--	7.72	--	--	584.04	584.04
<b>MW4-08</b>	12/11/2014	590.35	--	8.81	--	--	581.54	581.54
<b>MW4-08</b>	3/9/2015	590.35	--	9.72	--	--	580.63	580.63
<b>MW4-08</b>	6/1/2015	590.35	--	8.41	--	--	581.94	581.94
<b>MW4-08</b>	8/5/2015	590.35	--	8.82	--	--	581.53	581.53
<b>MW4-08</b>	1/8/2016	590.35	--	8.75	--	--	581.60	581.60
<b>MW4-08</b>	3/18/2016	590.35	--	7.74	--	--	582.61	582.61
<b>MW4-08</b>	5/26/2016	590.35	--	8.05	--	--	582.30	582.30
<b>MW4-08</b>	8/12/2016	590.35	--	9.51	--	--	580.84	580.84
<b>MW4-08</b>	12/9/2016	590.35	--	8.29	--	--	582.06	582.06
<b>MW4-08</b>	2/27/2017	590.35	--	7.87	--	--	582.48	582.48
<b>MW4-08</b>	6/19/2017	590.35	--	7.75	--	--	582.60	582.60
<b>MW4-08</b>	9/13/2017	590.35	--	8.87	--	--	581.48	581.48
<b>MW4-08</b>	11/16/2017	590.35	--	9.00	--	--	581.35	581.35
<b>MW4-08</b>	3/22/2018	590.35	--	7.28	--	--	583.07	583.07
<b>MW4-08</b>	5/17/2018	590.35	--	5.36	--	--	584.99	584.99
<b>MW4-08</b>	9/19/2018	590.35	--	6.13	--	--	584.22	584.22
<b>MW4-08</b>	11/29/2018	590.35	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW4-08</b>	3/21/2019	590.35	--	7.44	--	--	582.91	582.91
<b>MW4-08</b>	6/5/2019	590.35	--	6.17	--	--	584.18	584.18
<b>MW4-08</b>	9/9/2019	590.35	--	8.78	--	--	581.57	581.57
<b>MW4-08</b>	11/26/2019	590.35	--	8.18	--	--	582.17	582.17
<b>MW5-08</b>	4/24/2013	588.26	--	1.07	--	--	587.19	587.19
<b>MW5-08</b>	5/23/2013	588.26	--	3.51	--	--	584.75	584.75
<b>MW5-08</b>	6/20/2013	588.26	--	3.05	--	--	585.21	585.21
<b>MW5-08</b>	7/25/2013	588.26	--	0.15	--	--	588.11	588.11
<b>MW5-08</b>	8/29/2013	588.26	--	3.75	--	--	584.51	584.51
<b>MW5-08</b>	9/27/2013	588.26	--	4.04	--	--	584.22	584.22
<b>MW5-08</b>	10/22/2013	588.26	--	4.54	--	--	583.72	583.72
<b>MW5-08</b>	11/21/2013	588.26	--	3.61	--	--	584.65	584.65
<b>MW5-08</b>	12/11/2013	588.26	--	4.36	--	--	583.90	583.90
<b>MW5-08</b>	1/15/2014	588.26	--	0.73	--	--	587.53	587.53
<b>MW5-08</b>	2/26/2014	588.26	--	3.00	--	--	585.26	585.26
<b>MW5-08</b>	3/25/2014	588.26	--	2.50	--	--	585.76	585.76
<b>MW5-08</b>	5/5/2014	588.26	--	3.17	--	--	585.09	585.09
<b>MW5-08</b>	9/19/2014	588.26	--	2.71	--	--	585.55	585.55
<b>MW5-08</b>	12/11/2014	587.11	--	3.71	--	--	583.40	583.40
<b>MW5-08</b>	3/9/2015	587.11	--	0.58	--	--	586.53	586.53
<b>MW5-08</b>	6/1/2015	587.11	--	0.70	--	--	586.41	586.41
<b>MW5-08</b>	8/5/2015	587.11	--	3.22	--	--	583.89	583.89
<b>MW5-08</b>	1/8/2016	587.11	--	3.45	--	--	583.66	583.66
<b>MW5-08</b>	3/18/2016	587.11	--	2.69	--	--	584.42	584.42
<b>MW5-08</b>	5/26/2016	587.11	--	2.98	--	--	584.13	584.13
<b>MW5-08</b>	8/12/2016	587.11	--	4.65	--	--	582.46	582.46
<b>MW5-08</b>	12/9/2016	587.11	--	3.21	--	--	583.90	583.90
<b>MW5-08</b>	2/27/2017	587.11	--	2.94	--	--	584.17	584.17
<b>MW5-08</b>	6/19/2017	587.11	--	3.04	--	--	584.07	584.07
<b>MW5-08</b>	9/13/2017	587.11	--	4.12	--	--	582.99	582.99
<b>MW5-08</b>	11/16/2017	587.11	--	3.54	--	--	583.57	583.57
<b>MW5-08</b>	3/22/2018	587.11	--	2.78	--	--	584.33	584.33
<b>MW5-08</b>	5/17/2018	587.11	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW5-08</b>	9/19/2018	587.11	--	4.40	--	--	582.71	582.71
<b>MW5-08</b>	11/29/2018	587.11	--	1.98	--	--	585.13	585.13
<b>MW5-08</b>	3/21/2019	587.11	--	2.40	--	--	584.71	584.71
<b>MW5-08</b>	6/5/2019	587.11	--	1.67	--	--	585.44	585.44
<b>MW5-08</b>	9/9/2019	587.11	--	4.12	--	--	582.99	582.99

Table 1

**Hydraulic Measurements**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW5-08</b>	11/26/2019	587.11	--	3.13	--	--	583.98	583.98
<b>MW6-10</b>	4/24/2013	592.71	8.42	11.64	3.22	584.29	581.07	583.97
<b>MW6-10</b>	5/23/2013	592.71	9.18	12.55	3.37	583.53	580.16	583.19
<b>MW6-10</b>	6/20/2013	592.71	8.63	12.27	3.64	584.08	580.44	583.71
<b>MW6-10</b>	7/25/2013	592.71	--	10.09	trace	--	582.62	582.62
<b>MW6-10</b>	8/29/2013	592.71	--	11.92	trace	--	580.79	580.79
<b>MW6-10</b>	9/27/2013	592.71	10.85	12.57	1.72	581.86	580.14	581.69
<b>MW6-10</b>	10/22/2013	592.71	10.89	12.76	1.87	581.82	579.95	581.63
<b>MW6-10</b>	11/21/2013	592.71	12.32	12.72	0.40	580.39	579.99	580.35
<b>MW6-10</b>	12/11/2013	592.71	12.14	12.15	0.01	580.57	580.56	580.57
<b>MW6-10</b>	1/15/2014	592.71	--	12.54	trace	--	580.17	580.17
<b>MW6-10</b>	2/26/2014	592.71	10.88	10.95	0.07	581.83	581.76	581.82
<b>MW6-10</b>	3/25/2014	592.71	(2)	(2)	0.33 (2)	(2)	(2)	(2)
<b>MW6-10</b>	5/5/2014	592.71	(2)	(2)	2.13 (2)	(2)	(2)	(2)
<b>MW6-10</b>	9/19/2014	592.71	(2)	(2)	3.65 (2)	(2)	(2)	(2)
<b>MW6-10</b>	12/11/2014	591.56	9.54	12.27	2.73	582.02	579.29	581.75
<b>MW6-10</b>	3/9/2015	591.56	10.60	12.61	2.01	580.96	578.95	580.76
<b>MW6-10</b>	6/1/2015	591.56	9.28	12.00	2.72	582.28	579.56	582.01
<b>MW6-10</b>	8/5/2015	591.56	9.29	12.40	3.11	582.27	579.16	581.96
<b>MW6-10</b>	1/8/2016	591.56	9.55	12.12	2.57	582.01	579.44	581.75
<b>MW6-10</b>	3/18/2016	591.56	8.60	11.87	3.27	582.96	579.69	582.63
<b>MW6-10</b>	5/26/2016	591.56	8.68	12.68	4.00	582.88	578.88	582.48
<b>MW6-10</b>	8/12/2016	591.56	10.24	13.00	2.76	581.32	578.56	581.04
<b>MW6-10</b>	12/9/2016	591.56	8.59	10.05	1.46	582.97	581.51	582.82
<b>MW6-10</b>	2/27/2017	591.56	8.56	12.01	3.45	583.00	579.55	582.65
<b>MW6-10</b>	6/19/2017	591.56	8.48	13.61	5.13	583.08	577.95	582.57
<b>MW6-10</b>	9/13/2017	591.56	9.75	12.15	2.40	581.81	579.41	581.57
<b>MW6-10</b>	11/16/2017	591.56	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW6-10</b>	3/22/2018	591.56	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW6-10</b>	5/17/2018	591.56	--	6.43	--	--	585.13	585.13
<b>MW6-10</b>	9/19/2018	591.56	10.04	11.63	1.59	581.52	579.93	581.36
<b>MW6-10</b>	11/29/2018	591.56	7.62	8.66	1.04	583.94	582.90	583.83
<b>MW6-10<sup>(9)</sup></b>	3/21/2019	591.56	--	4.20	--	--	--	--
<b>MW6-10</b>	6/5/2019	591.56	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW6-10</b>	9/9/2019	591.56	9.76	9.77	0.01	581.80	581.79	581.80
<b>MW6-10</b>	11/26/2019	591.56	--	9.25	--	--	582.31	582.31
<b>MW7-10</b>	4/24/2013	592.21	8.25	10.42	2.17	583.96	581.79	583.75
<b>MW7-10</b>	5/23/2013	592.21	9.05	10.61	1.56	583.16	581.60	583.01
<b>MW7-10</b>	6/20/2013	592.21	8.39	10.55	2.16	583.82	581.66	583.61
<b>MW7-10</b>	7/25/2013	592.21	--	10.30	trace	--	581.91	581.91
<b>MW7-10</b>	8/29/2013	592.21	--	11.44	trace	--	580.77	580.77
<b>MW7-10</b>	9/27/2013	592.21	10.61	11.02	0.41	581.60	581.19	581.56
<b>MW7-10</b>	10/22/2013	592.21	10.77	11.15	0.38	581.44	581.06	581.41
<b>MW7-10</b>	11/21/2013	592.21	--	11.92	trace	--	580.29	580.29
<b>MW7-10</b>	12/11/2013	592.21	--	11.57	trace	--	580.64	580.64
<b>MW7-10</b>	1/15/2014	592.21	11.22	11.37	0.15	580.99	580.84	580.98
<b>MW7-10</b>	2/26/2014	592.21	10.38	10.41	0.03	581.83	581.80	581.83
<b>MW7-10</b>	3/25/2014	592.21	9.36	9.78	0.42	582.85	582.43	582.81
<b>MW7-10</b>	5/5/2014	592.21	9.14	10.14	1.00	583.07	582.07	582.97
<b>MW7-10</b>	9/19/2014	592.21	7.77	10.98	3.21	584.44	581.23	584.12
<b>MW7-10</b>	12/11/2014	591.01	9.00	10.98	1.98	582.01	580.03	581.81
<b>MW7-10</b>	3/9/2015	591.01	10.08	11.43	1.35	580.93	579.58	580.80
<b>MW7-10</b>	6/1/2015	591.01	8.78	10.40	1.62	582.23	580.61	582.07
<b>MW7-10</b>	8/5/2015	591.01	8.83	10.86	2.03	582.18	580.15	581.98
<b>MW7-10</b>	1/8/2016	591.01	9.06	10.41	1.35	581.95	580.60	581.82
<b>MW7-10</b>	3/18/2016	591.01	8.13	10.07	1.94	582.88	580.94	582.69
<b>MW7-10</b>	5/26/2016	591.01	8.21	11.35	3.14	582.80	579.66	582.49
<b>MW7-10</b>	8/12/2016	591.01	9.82	11.06	1.24	581.19	579.95	581.07

Table 1

**Hydraulic Measurements**  
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**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW7-10</b>	12/9/2016	591.01	9.02	12.07	3.05	581.99	578.94	581.69
<b>MW7-10</b>	2/27/2017	591.01	8.10	10.62	2.52	582.91	580.39	582.66
<b>MW7-10</b>	6/19/2017	591.01	8.22	11.35	3.13	582.79	579.66	582.48
<b>MW7-10</b>	9/13/2017	591.01	9.39	11.61	2.22	581.62	579.40	581.40
<b>MW7-10</b>	11/16/2017	591.01	9.65	12.71	3.06	581.36	578.30	581.05
<b>MW7-10</b>	3/22/2018	591.01	8.02	10.32	2.30	582.99	580.69	582.76
<b>MW7-10</b>	5/17/2018	591.01	5.76	10.03	4.27	585.25	580.98	584.82
<b>MW7-10</b>	9/19/2018	591.01	9.75	11.13	1.38	581.26	579.88	581.12
<b>MW7-10</b>	11/29/2018	591.01	7.15	10.36	3.21	583.86	580.65	583.54
<b>MW7-10</b>	3/21/2019	591.01	7.54	12.98	5.44	583.47	578.03	582.93
<b>MW7-10</b>	6/5/2019	591.01	6.38	11.50	5.12	584.63	579.51	584.12
<b>MW7-10</b>	9/9/2019	591.01	9.38	10.98	1.60	581.63	580.03	581.47
<b>MW7-10</b>	11/26/2019	591.01	8.81	10.78	1.97	582.20	580.23	582.00
<b>MW8-10</b>	4/24/2013	592.24	--	8.68	--	--	583.56	583.56
<b>MW8-10</b>	5/23/2013	592.24	--	9.39	--	--	582.85	582.85
<b>MW8-10</b>	6/20/2013	592.24	--	8.74	--	--	583.50	583.50
<b>MW8-10</b>	7/25/2013	592.24	--	9.08	--	--	583.16	583.16
<b>MW8-10</b>	8/29/2013	592.24	--	11.13	--	--	581.11	581.11
<b>MW8-10</b>	9/27/2013	592.24	--	10.82	--	--	581.42	581.42
<b>MW8-10</b>	10/22/2013	592.24	--	11.00	--	--	581.24	581.24
<b>MW8-10</b>	11/21/2013	592.24	--	12.04	--	--	580.20	580.20
<b>MW8-10</b>	12/11/2013	592.24	--	11.67	--	--	580.57	580.57
<b>MW8-10</b>	1/15/2014	592.24	--	11.35	--	--	580.89	580.89
<b>MW8-10</b>	2/26/2014	592.24	--	10.54	--	--	581.70	581.70
<b>MW8-10</b>	3/25/2014	592.24	--	9.51	--	--	582.73	582.73
<b>MW8-10</b>	5/5/2014	592.24	--	9.33	--	--	582.91	582.91
<b>MW8-10</b>	9/19/2014	592.24	--	8.20	--	--	584.04	584.04
<b>MW8-10</b>	12/11/2014	591.18	--	9.27	--	--	581.91	581.91
<b>MW8-10</b>	3/9/2015	591.18	--	10.33	--	--	580.85	580.85
<b>MW8-10</b>	6/1/2015	591.18	--	9.10	--	--	582.08	582.08
<b>MW8-10</b>	8/5/2015	591.18	--	9.10	--	--	582.08	582.08
<b>MW8-10</b>	1/8/2016	591.18	--	9.01	--	--	582.17	582.17
<b>MW8-10</b>	3/18/2016	591.18	--	8.28	--	--	582.90	582.90
<b>MW8-10</b>	5/26/2016	591.18	--	8.54	--	--	582.64	582.64
<b>MW8-10</b>	8/12/2016	591.18	--	9.99	--	--	581.19	581.19
<b>MW8-10</b>	12/9/2016	591.18	--	8.90	--	--	582.28	582.28
<b>MW8-10</b>	2/27/2017	591.18	--	8.42	--	--	582.76	582.76
<b>MW8-10</b>	6/19/2017	591.18	--	8.33	--	--	582.85	582.85
<b>MW8-10</b>	9/13/2017	591.18	--	9.34	--	--	581.84	581.84
<b>MW8-10</b>	11/16/2017	591.18	--	9.56	--	--	581.62	581.62
<b>MW8-10</b>	3/22/2018	591.18	--	8.06	--	--	583.12	583.12
<b>MW8-10</b>	5/17/2018	591.18	--	6.00	--	--	585.18	585.18
<b>MW8-10</b>	9/19/2018	591.18	--	9.73	--	--	581.45	581.45
<b>MW8-10</b>	11/29/2018	591.18	--	7.35	--	--	583.83	583.83
<b>MW8-10</b>	3/21/2019	591.18	--	7.76	--	--	583.42	583.42
<b>MW8-10</b>	6/5/2019	591.18	--	6.67	--	--	584.51	584.51
<b>MW8-10</b>	9/9/2019	591.18	--	9.38	--	--	581.80	581.80
<b>MW8-10</b>	11/26/2019	591.18	--	8.87	--	--	582.31	582.31
<b>MW9-10</b>	4/24/2013	591.79	--	8.08	--	--	583.71	583.71
<b>MW9-10</b>	5/23/2013	591.79	--	9.20	--	--	582.59	582.59
<b>MW9-10</b>	6/20/2013	591.79	--	8.47	--	--	583.32	583.32
<b>MW9-10</b>	7/25/2013	591.79	--	7.78	--	--	584.01	584.01
<b>MW9-10</b>	8/29/2013	591.79	--	10.09	--	--	581.70	581.70
<b>MW9-10</b>	9/27/2013	591.79	--	10.52	--	--	581.27	581.27
<b>MW9-10</b>	10/22/2013	591.79	--	11.26	--	--	580.53	580.53
<b>MW9-10</b>	11/21/2013	591.79	--	11.35	--	--	580.44	580.44
<b>MW9-10</b>	12/11/2013	591.79	--	11.12	--	--	580.67	580.67
<b>MW9-10</b>	1/15/2014	591.79	--	9.92	--	--	581.87	581.87

Table 1

**Hydraulic Measurements**  
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**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW9-10</b>	2/26/2014	591.79	--	10.08	--	--	581.71	581.71
<b>MW9-10</b>	3/25/2014	591.79	--	9.15	--	--	582.64	582.64
<b>MW9-10</b>	5/5/2014	591.79	--	9.07	--	--	582.72	582.72
<b>MW9-10</b>	9/19/2014	591.79	--	8.09	--	--	583.70	583.70
<b>MW9-10</b>	12/11/2014	590.43	--	9.12	--	--	581.31	581.31
<b>MW9-10</b>	3/9/2015	590.43	--	9.94	--	--	580.49	580.49
<b>MW9-10</b>	6/1/2015	590.43	--	8.39	--	--	582.04	582.04
<b>MW9-10</b>	8/5/2015	590.43	--	8.87	--	--	581.56	581.56
<b>MW9-10</b>	1/8/2016	590.43	--	9.05	--	--	581.38	581.38
<b>MW9-10</b>	3/18/2016	590.43	--	8.11	--	--	582.32	582.32
<b>MW9-10</b>	5/26/2016	590.43	--	8.48	--	--	581.95	581.95
<b>MW9-10</b>	8/12/2016	590.43	--	9.81	--	--	580.62	580.62
<b>MW9-10</b>	12/9/2016	590.43	--	8.71	--	--	581.72	581.72
<b>MW9-10</b>	2/27/2017	590.43	--	8.24	--	--	582.19	582.19
<b>MW9-10</b>	6/19/2017	590.43	--	8.21	--	--	582.22	582.22
<b>MW9-10</b>	9/13/2017	590.43	--	9.22	--	--	581.21	581.21
<b>MW9-10</b>	11/16/2017	590.43	--	9.33	--	--	581.10	581.10
<b>MW9-10</b>	3/22/2018	590.43	--	7.81	--	--	582.62	582.62
<b>MW9-10</b>	5/17/2018	590.43	--	5.77	--	--	584.66	584.66
<b>MW9-10</b>	9/19/2018	590.43	--	9.47	--	--	580.96	580.96
<b>MW9-10</b>	11/29/2018	590.43	--	7.09	--	--	583.34	583.34
<b>MW9-10</b>	3/21/2019	590.43	--	7.75	--	--	582.68	582.68
<b>MW9-10</b>	6/5/2019	590.43	--	6.65	--	--	583.78	583.78
<b>MW9-10</b>	9/9/2019	590.43	--	9.19	--	--	581.24	581.24
<b>MW9-10</b>	11/26/2019	590.43	--	8.56	--	--	581.87	581.87
<b>MW10-10</b>	4/24/2013	589.66	5.99	6.06	0.07	583.67	583.60	583.66
<b>MW10-10</b>	5/23/2013	589.66	7.10	8.04	0.94	582.56	581.62	582.47
<b>MW10-10</b>	6/20/2013	589.66	6.31	6.72	0.41	583.35	582.94	583.31
<b>MW10-10</b>	7/25/2013	589.66	5.62	6.24	0.62	584.04	583.42	583.98
<b>MW10-10</b>	8/29/2013	589.66	7.84	8.88	1.04	581.82	580.78	581.72
<b>MW10-10</b>	9/27/2013	589.66	8.42	8.47	0.05	581.24	581.19	581.23
<b>MW10-10</b>	10/22/2013	589.66	--	9.89	trace	--	579.77	579.77
<b>MW10-10</b>	11/21/2013	589.66	9.07	9.64	0.57	580.59	580.02	580.53
<b>MW10-10</b>	12/11/2013	589.66	8.98	9.45	0.47	580.68	580.21	580.63
<b>MW10-10</b>	1/15/2014	589.66	7.76	8.11	0.35	581.90	581.55	581.86
<b>MW10-10</b>	2/26/2014	589.66	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW10-10</b>	3/25/2014	589.66	--	7.07	--	--	582.59	582.59
<b>MW10-10</b>	5/5/2014	589.66	--	7.01	--	--	582.65	582.65
<b>MW10-10</b>	9/19/2014	589.66	5.95	6.04	0.09	583.71	583.62	583.70
<b>MW10-10</b>	12/11/2014	588.52	7.03	7.15	0.12	581.49	581.37	581.48
<b>MW10-10</b>	3/9/2015	588.52	7.95	8.50	0.55	580.57	580.02	580.52
<b>MW10-10</b>	6/1/2015	588.52	6.03	6.12	0.09	582.49	582.40	582.48
<b>MW10-10</b>	8/5/2015	588.52	6.85	7.32	0.47	581.67	581.20	581.63
<b>MW10-10</b>	1/8/2016	588.52	6.98	6.98	0.00	581.54	581.54	581.54
<b>MW10-10</b>	3/18/2016	588.52	--	5.25	--	--	583.27	583.27
<b>MW10-10</b>	5/26/2016	588.52	6.39	6.49	0.10	582.13	582.03	582.12
<b>MW10-10</b>	8/12/2016	588.52	7.58	8.41	0.83	580.94	580.11	580.86
<b>MW10-10</b>	12/9/2016	588.52	6.63	6.91	0.28	581.89	581.61	581.86
<b>MW10-10</b>	2/27/2017	588.52	6.15	6.28	0.13	582.37	582.24	582.36
<b>MW10-10</b>	6/19/2017	588.52	6.10	6.79	0.69	582.42	581.73	582.35
<b>MW10-10</b>	9/13/2017	588.52	7.02	7.49	0.47	581.50	581.03	581.46
<b>MW10-10</b>	11/16/2017	588.52	7.00	7.46	0.46	581.52	581.06	581.48
<b>MW10-10</b>	3/22/2018	588.52	5.75	5.88	0.13	582.77	582.64	582.76
<b>MW10-10</b>	5/17/2018	588.52	2.60	2.61	0.01	585.92	585.91	585.92
<b>MW10-10</b>	9/19/2018	588.52	7.31	8.12	0.81	581.21	580.40	581.13
<b>MW10-10</b>	11/29/2018	588.52	--	3.55	--	--	584.97	584.97
<b>MW10-10</b>	3/21/2019	588.52	--	4.60	--	--	583.92	583.92
<b>MW10-10</b>	6/5/2019	588.52	--	4.60	--	--	583.92	583.92

Table 1

**Hydraulic Measurements**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW10-10</b>	9/9/2019	588.52	7.12	7.22	0.10	581.40	581.30	581.39
<b>MW10-10</b>	11/26/2019	588.52	--	4.73	--	--	583.79	583.79
<b>MW11-12</b>	4/24/2013	588.15	--	1.65	--	--	586.50	586.50
<b>MW11-12</b>	5/23/2013	588.15	--	2.13	--	--	586.02	586.02
<b>MW11-12</b>	6/20/2013	588.15	--	2.08	--	--	586.07	586.07
<b>MW11-12</b>	7/25/2013	588.15	--	0.72	--	--	587.43	587.43
<b>MW11-12</b>	8/29/2013	588.15	--	2.82	--	--	585.33	585.33
<b>MW11-12</b>	9/27/2013	588.15	--	2.98	--	--	585.17	585.17
<b>MW11-12</b>	10/22/2013	588.15	--	3.31	--	--	584.84	584.84
<b>MW11-12</b>	11/21/2013	588.15	--	2.22	--	--	585.93	585.93
<b>MW11-12</b>	12/11/2013	588.15	--	3.02	--	--	585.13	585.13
<b>MW11-12</b>	1/15/2014	588.15	--	1.32	--	--	586.83	586.83
<b>MW11-12</b>	2/26/2014	588.15	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW11-12</b>	3/25/2014	588.15	--	1.19	--	--	586.96	586.96
<b>MW11-12</b>	5/5/2014	588.15	--	2.23	--	--	585.92	585.92
<b>MW11-12</b>	9/19/2014	588.15	--	1.75	--	--	586.40	586.40
<b>MW11-12</b>	12/11/2014	587.19	--	2.69	--	--	584.50	584.50
<b>MW11-12</b>	3/9/2015	587.19	(4)	(4)	(4)	(4)	(4)	(4)
<b>MW11-12</b>	6/1/2015	587.19	--	1.00	--	--	586.19	586.19
<b>MW11-12</b>	8/5/2015	587.19	--	1.62	--	--	585.57	585.57
<b>MW11-12</b>	1/8/2016	587.19	--	2.12	--	--	585.07	585.07
<b>MW11-12</b>	3/18/2016	587.19	--	0.93	--	--	586.26	586.26
<b>MW11-12</b>	5/26/2016	587.19	--	1.02	--	--	586.17	586.17
<b>MW11-12</b>	8/12/2016	587.19	--	3.11	--	--	584.08	584.08
<b>MW11-12</b>	12/9/2016	587.19	--	2.12	--	--	585.07	585.07
<b>MW11-12</b>	2/27/2017	587.19	--	1.00	--	--	586.19	586.19
<b>MW11-12</b>	6/19/2017	587.19	--	1.58	--	--	585.61	585.61
<b>MW11-12</b>	9/13/2017	587.19	--	2.76	--	--	584.43	584.43
<b>MW11-12</b>	11/16/2017	587.19	--	2.15	--	--	585.04	585.04
<b>MW11-12</b>	3/22/2018	587.19	--	1.31	--	--	585.88	585.88
<b>MW11-12</b>	5/17/2018	587.19	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW11-12</b>	9/19/2018	587.19	--	3.38	--	--	583.81	583.81
<b>MW11-12</b>	11/29/2018	587.19	--	0.50	--	--	586.69	586.69
<b>MW11-12</b> <sup>(b)</sup>	3/21/2019	587.19	--	1.00	--	--	586.19	586.19
<b>MW11-12</b>	6/5/2019	587.19	(10)	(10)	(10)	(10)	(10)	(10)
<b>MW11-12</b>	9/9/2019	587.19	--	3.16	--	--	584.03	584.03
<b>MW11-12</b>	11/26/2019	587.19	(4)	(4)	(4)	(4)	(4)	(4)
<b>MW13-12</b>	4/24/2013	587.95	--	4.27	--	--	583.68	583.68
<b>MW13-12</b>	5/23/2013	587.95	--	5.21	--	--	582.74	582.74
<b>MW13-12</b>	6/20/2013	587.95	--	4.61	--	--	583.34	583.34
<b>MW13-12</b>	7/25/2013	587.95	--	3.82	--	--	584.13	584.13
<b>MW13-12</b>	8/29/2013	587.95	--	6.05	--	--	581.90	581.90
<b>MW13-12</b>	9/27/2013	587.95	--	6.66	--	--	581.29	581.29
<b>MW13-12</b>	10/22/2013	587.95	--	7.25	--	--	580.70	580.70
<b>MW13-12</b>	11/21/2013	587.95	--	7.31	--	--	580.64	580.64
<b>MW13-12</b>	12/11/2013	587.95	--	7.21	--	--	580.74	580.74
<b>MW13-12</b>	1/15/2014	587.95	--	5.91	--	--	582.04	582.04
<b>MW13-12</b>	2/26/2014	587.95	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW13-12</b>	3/25/2014	587.95	--	5.33	--	--	582.62	582.62
<b>MW13-12</b>	5/5/2014	587.95	--	5.22	--	--	582.73	582.73
<b>MW13-12</b>	9/19/2014	587.95	--	4.14	--	--	583.81	583.81
<b>MW13-12</b>	12/11/2014	586.78	--	5.37	--	--	581.41	581.41
<b>MW13-12</b>	3/9/2015	586.78	--	6.33	--	--	580.45	580.45
<b>MW13-12</b>	6/1/2015	586.78	--	1.41	--	--	585.37	585.37
<b>MW13-12</b>	8/5/2015	586.78	--	3.05	--	--	583.73	583.73
<b>MW13-12</b>	1/8/2016	586.78	--	4.32	--	--	582.46	582.46
<b>MW13-12</b>	3/18/2016	586.78	--	1.10	--	--	585.68	585.68
<b>MW13-12</b>	5/26/2016	586.78	--	4.59	--	--	582.19	582.19

Table 1

**Hydraulic Measurements**  
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**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW13-12</b>	8/12/2016	586.78	--	5.92	--	--	580.86	580.86
<b>MW13-12</b>	12/9/2016	586.78	--	3.11	--	--	583.67	583.67
<b>MW13-12</b>	2/27/2017	586.78	--	1.85	--	--	584.93	584.93
<b>MW13-12</b>	6/19/2017	586.78	--	4.05	--	--	582.73	582.73
<b>MW13-12</b>	9/13/2017	586.78	--	5.31	--	--	581.47	581.47
<b>MW13-12</b>	11/16/2017	586.78	(5)	(5)	(5)	(5)	(5)	(5)
<b>MW13-12</b>	3/22/2018	586.78	--	3.62	--	--	583.16	583.16
<b>MW13-12</b>	5/17/2018	586.78	--	1.47	--	--	585.31	585.31
<b>MW13-12</b>	9/19/2018	586.78	--	5.45	--	--	581.33	581.33
<b>MW13-12</b>	11/29/2018	586.78	--	2.93	--	--	583.85	583.85
<b>MW13-12</b>	3/21/2019	586.78	--	3.56	--	--	583.22	583.22
<b>MW13-12</b>	6/5/2019	586.78	--	2.22	--	--	584.56	584.56
<b>MW13-12</b>	9/9/2019	586.78	--	4.94	--	--	581.84	581.84
<b>MW13-12</b>	11/26/2019	586.78	(5)	(5)	(5)	(5)	(5)	(5)
<b>MW14-12</b>	4/24/2013	588.11	--	4.42	--	--	583.69	583.69
<b>MW14-12</b>	5/23/2013	588.11	--	5.31	--	--	582.80	582.80
<b>MW14-12</b>	6/20/2013	588.11	--	4.76	--	--	583.35	583.35
<b>MW14-12</b>	7/25/2013	588.11	--	4.20	--	--	583.91	583.91
<b>MW14-12</b>	8/29/2013	588.11	--	6.16	--	--	581.95	581.95
<b>MW14-12</b>	9/27/2013	588.11	--	6.82	--	--	581.29	581.29
<b>MW14-12</b>	10/22/2013	588.11	--	7.33	--	--	580.78	580.78
<b>MW14-12</b>	11/21/2013	588.11	--	7.42	--	--	580.69	580.69
<b>MW14-12</b>	12/11/2013	588.11	--	7.39	--	--	580.72	580.72
<b>MW14-12</b>	1/15/2014	588.11	--	5.23	--	--	582.88	582.88
<b>MW14-12</b>	2/26/2014	588.11	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW14-12</b>	3/25/2014	588.11	--	5.35	--	--	582.76	582.76
<b>MW14-12</b>	5/5/2014	588.11	--	5.22	--	--	582.89	582.89
<b>MW14-12</b>	9/19/2014	588.11	--	3.94	--	--	584.17	584.17
<b>MW14-12</b>	12/11/2014	586.81	--	5.32	--	--	581.49	581.49
<b>MW14-12</b>	3/9/2015	586.81	(4)	(4)	(4)	(4)	(4)	(4)
<b>MW14-12</b>	6/1/2015	586.81	--	4.35	--	--	582.46	582.46
<b>MW14-12</b>	8/5/2015	586.81	--	4.98	--	--	581.83	581.83
<b>MW14-12</b>	1/8/2016	586.81	--	4.67	--	--	582.14	582.14
<b>MW14-12</b>	3/18/2016	586.81	--	3.40	--	--	583.41	583.41
<b>MW14-12</b>	5/26/2016	586.81	--	3.90	--	--	582.91	582.91
<b>MW14-12</b>	8/12/2016	586.81	--	5.88	--	--	580.93	580.93
<b>MW14-12</b>	12/9/2016	586.81	--	4.78	--	--	582.03	582.03
<b>MW14-12</b>	2/27/2017	586.81	--	3.60	--	--	583.21	583.21
<b>MW14-12</b>	6/19/2017	586.81	--	3.58	--	--	583.23	583.23
<b>MW14-12</b>	9/13/2017	586.81	--	5.32	--	--	581.49	581.49
<b>MW14-12</b>	11/16/2017	586.81	--	5.45	--	--	581.36	581.36
<b>MW14-12</b>	3/22/2018	586.81	--	3.42	--	--	583.39	583.39
<b>MW14-12</b>	5/17/2018	586.81	--	2.11	--	--	584.70	584.70
<b>MW14-12</b>	9/19/2018	586.81	--	5.50	--	--	581.31	581.31
<b>MW14-12</b>	11/29/2018	586.81	(6)	(6)	(6)	(6)	(6)	(6)
<b>MW14-12</b>	3/21/2019	586.81	(5)	(5)	(5)	(5)	(5)	(5)
<b>MW14-12</b>	6/5/2019	586.81	--	2.25	--	--	584.56	584.56
<b>MW14-12</b>	9/9/2019	586.81	--	5.05	--	--	581.76	581.76
<b>MW14-12</b>	11/26/2019	586.81	(5)	(5)	(5)	(5)	(5)	(5)
<b>MW15-12</b>	4/24/2013	588.75	--	6.90	--	--	581.85	581.85
<b>MW15-12</b>	5/23/2013	588.75	--	3.87	--	--	584.88	584.88
<b>MW15-12</b>	6/20/2013	588.75	--	4.32	--	--	584.43	584.43
<b>MW15-12</b>	7/25/2013	588.75	--	3.71	--	--	585.04	585.04
<b>MW15-12</b>	8/29/2013	588.75	--	4.34	--	--	584.41	584.41
<b>MW15-12</b>	9/27/2013	588.75	--	5.26	--	--	583.49	583.49
<b>MW15-12</b>	10/22/2013	588.75	--	5.67	--	--	583.08	583.08
<b>MW15-12</b>	11/21/2013	588.75	--	6.17	--	--	582.58	582.58
<b>MW15-12</b>	12/11/2013	588.75	--	6.41	--	--	582.34	582.34

Table 1

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Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW15-12</b>	1/15/2014	588.75	--	5.98	--	--	582.77	582.77
<b>MW15-12</b>	2/26/2014	588.75	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW15-12</b>	3/25/2014	588.75	--	5.48	--	--	583.27	583.27
<b>MW15-12</b>	5/5/2014	588.75	--	5.11	--	--	583.64	583.64
<b>MW15-12</b>	9/19/2014	588.75	--	3.97	--	--	584.78	584.78
<b>MW15-12</b>	12/11/2014	587.26	--	4.67	--	--	582.59	582.59
<b>MW15-12</b>	3/9/2015	587.26	(4)	(4)	(4)	(4)	(4)	(4)
<b>MW15-12</b>	6/1/2015	587.26	--	4.61	--	--	582.65	582.65
<b>MW15-12</b>	8/5/2015	587.26	--	4.60	--	--	582.66	582.66
<b>MW15-12</b>	1/8/2016	587.26	--	4.92	--	--	582.34	582.34
<b>MW15-12</b>	3/18/2016	587.26	--	3.98	--	--	583.28	583.28
<b>MW15-12</b>	5/26/2016	587.26	--	3.59	--	--	583.67	583.67
<b>MW15-12</b>	8/12/2016	587.26	--	5.10	--	--	582.16	582.16
<b>MW15-12</b>	12/9/2016	587.26	--	3.81	--	--	583.45	583.45
<b>MW15-12</b>	2/27/2017	587.26	--	3.55	--	--	583.71	583.71
<b>MW15-12</b>	6/19/2017	587.26	--	3.32	--	--	583.94	583.94
<b>MW15-12</b>	9/13/2017	587.26	--	4.47	--	--	582.79	582.79
<b>MW15-12</b>	11/16/2017	587.26	--	4.98	--	--	582.28	582.28
<b>MW15-12</b>	3/22/2018	587.26	--	3.33	--	--	583.93	583.93
<b>MW15-12</b>	5/17/2018	587.26	--	2.22	--	--	585.04	585.04
<b>MW15-12</b>	9/19/2018	587.26	--	4.44	--	--	582.82	582.82
<b>MW15-12</b>	11/29/2018	587.26	--	2.93	--	--	584.33	584.33
<b>MW15-12</b>	3/21/2019	587.26	(5)	(5)	(5)	(5)	(5)	(5)
<b>MW15-12</b>	6/5/2019	587.26	--	2.87	--	--	584.39	584.39
<b>MW15-12</b>	9/9/2019	587.26	--	4.21	--	--	583.05	583.05
<b>MW15-12</b>	11/26/2019	587.26	--	3.82	--	--	583.44	583.44
<b>MW16-12</b>	4/24/2013	587.87	--	2.57	--	--	585.30	585.30
<b>MW16-12</b>	5/23/2013	587.87	--	2.91	--	--	584.96	584.96
<b>MW16-12</b>	6/20/2013	587.87	--	2.39	--	--	585.48	585.48
<b>MW16-12</b>	7/25/2013	587.87	--	1.53	--	--	586.34	586.34
<b>MW16-12</b>	8/29/2013	587.87	--	2.41	--	--	585.46	585.46
<b>MW16-12</b>	9/27/2013	587.87	--	3.24	--	--	584.63	584.63
<b>MW16-12</b>	10/22/2013	587.87	--	3.78	--	--	584.09	584.09
<b>MW16-12</b>	11/21/2013	587.87	--	4.16	--	--	583.71	583.71
<b>MW16-12</b>	12/11/2013	587.87	--	4.20	--	--	583.67	583.67
<b>MW16-12</b>	1/15/2014	587.87	--	1.26	--	--	586.61	586.61
<b>MW16-12</b>	2/26/2014	587.87	--	3.27	--	--	584.60	584.60
<b>MW16-12</b>	3/25/2014	587.87	--	3.01	--	--	584.86	584.86
<b>MW16-12</b>	5/5/2014	587.87	--	2.53	--	--	585.34	585.34
<b>MW16-12</b>	9/19/2014	587.87	--	2.25	--	--	585.62	585.62
<b>MW16-12</b>	12/11/2014	586.67	--	2.70	--	--	583.97	583.97
<b>MW16-12</b>	3/9/2015	586.67	(4)	(4)	(4)	(4)	(4)	(4)
<b>MW16-12</b>	6/1/2015	586.67	--	1.91	--	--	584.76	584.76
<b>MW16-12</b>	8/5/2015	586.67	--	2.89	--	--	583.78	583.78
<b>MW16-12</b>	1/8/2016	586.67	--	4.43	--	--	582.24	582.24
<b>MW16-12</b>	3/18/2016	586.67	--	2.96	--	--	583.71	583.71
<b>MW16-12</b>	5/26/2016	586.67	--	2.53	--	--	584.14	584.14
<b>MW16-12</b>	8/12/2016	586.67	--	4.44	--	--	582.23	582.23
<b>MW16-12</b>	12/9/2016	586.67	--	2.67	--	--	584.00	584.00
<b>MW16-12</b>	2/27/2017	586.67	--	1.84	--	--	584.83	584.83
<b>MW16-12</b>	6/19/2017	586.67	--	1.81	--	--	584.86	584.86
<b>MW16-12</b>	9/13/2017	586.67	--	4.12	--	--	582.55	582.55
<b>MW16-12</b>	11/16/2017	586.67	--	5.09	--	--	581.58	581.58
<b>MW16-12</b>	3/22/2018	586.67	--	2.52	--	--	584.15	584.15
<b>MW16-12</b>	5/17/2018	586.67	--	1.57	--	--	585.10	585.10
<b>MW16-12</b>	9/19/2018	586.67	--	4.56	--	--	582.11	582.11
<b>MW16-12</b>	11/29/2018	586.67	--	2.00	--	--	584.67	584.67
<b>MW16-12</b>	3/21/2019	586.67	--	1.36	--	--	585.31	585.31

Table 1

**Hydraulic Measurements**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW16-12</b>	6/5/2019	586.67	--	1.31	--	--	585.36	585.36
<b>MW16-12</b>	9/9/2019	586.67	--	4.33	--	--	582.34	582.34
<b>MW16-12</b>	11/26/2019	586.67	--	3.05	--	--	583.62	583.62
<b>TW-1</b>	4/24/2013	592.43	--	8.53	--	--	583.90	583.90
<b>TW-1</b>	5/23/2013	592.43	9.35	9.35	trace	583.08	583.08	583.08
<b>TW-1</b>	6/20/2013	592.43	8.85	8.85	trace	583.58	583.58	583.58
<b>TW-1</b>	7/25/2013	592.43	8.77	8.81	0.04	583.66	583.62	583.66
<b>TW-1</b>	8/29/2013	592.43	--	11.43	--	--	581.00	581.00
<b>TW-1</b>	9/27/2013	592.43	10.84	10.87	0.03	581.59	581.56	581.59
<b>TW-1</b>	10/22/2013	592.43	10.93	10.98	0.05	581.50	581.45	581.50
<b>TW-1</b>	11/21/2013	592.43	--	12.20	--	--	580.23	580.23
<b>TW-1</b>	12/11/2013	592.43	--	11.91	trace	--	580.52	580.52
<b>TW-1</b>	1/15/2014	592.43	--	11.86	trace	--	580.57	580.57
<b>TW-1</b>	2/26/2014	592.43	--	10.67	trace	--	581.76	581.76
<b>TW-1</b>	3/25/2014	592.43	(2)	(2)	trace (2)	(2)	(2)	(2)
<b>TW-1</b>	5/5/2014	592.43	(2)	(2)	trace (2)	(2)	(2)	(2)
<b>TW-1</b>	9/19/2014	592.43	--	8.28	trace	--	584.15	584.15
<b>TW-1</b>	12/11/2014	591.22	--	9.41	trace	--	581.81	581.81
<b>TW-1</b>	3/9/2015	591.22	10.38	10.39	0.01	580.84	580.83	580.84
<b>TW-1</b>	6/1/2015	591.22	9.13	9.14	0.01	582.09	582.08	582.09
<b>TW-1</b>	8/5/2015	591.22	9.20	9.21	0.01	582.02	582.01	582.02
<b>TW-1</b>	1/8/2016	591.22	9.36	9.36	0.00	581.86	581.86	581.86
<b>TW-1</b>	3/18/2016	591.22	8.45	8.46	0.01	582.77	582.76	582.77
<b>TW-1</b>	5/26/2016	591.22	8.65	8.67	0.02	582.57	582.55	582.57
<b>TW-1</b>	8/12/2016	591.22	10.11	10.11	0.00	581.11	581.11	581.11
<b>TW-1</b>	12/9/2016	591.22	--	8.82	trace	--	582.40	582.40
<b>TW-1</b>	2/27/2017	591.22	8.47	8.50	0.03	582.75	582.72	582.75
<b>TW-1</b>	6/19/2017	591.22	8.39	8.44	0.05	582.83	582.78	582.82
<b>TW-1</b>	9/13/2017	591.22	9.46	9.54	0.08	581.76	581.68	581.75
<b>TW-1</b>	11/16/2017	591.22	9.70	9.75	0.05	581.52	581.47	581.51
<b>TW-1</b>	3/22/2018	591.22	7.38	8.00	0.62	583.84	583.22	583.78
<b>TW-1</b>	5/17/2018	591.22	6.05	6.20	0.15	585.17	585.02	585.15
<b>TW-1</b>	9/19/2018	591.22	9.70	14.54	4.84	581.52	576.68	581.04
<b>TW-1</b> <sup>(1)</sup>	11/29/2018	591.22	7.23	7.38	0.15	583.99	583.84	583.97
<b>TW-1</b> <sup>(9)</sup>	3/21/2019	591.22	5.99	7.05	1.06	--	--	--
<b>TW-1</b> <sup>(9)</sup>	6/5/2019	591.22	6.79	7.90	1.11	--	583.32	584.32
<b>TW-1</b>	9/9/2019	591.22	9.48	9.71	0.23	581.74	581.51	581.72
<b>TW-1</b>	11/26/2019	591.22	8.87	9.19	0.32	582.35	582.03	582.32
<b>TW-2</b>	4/24/2013	592.20	7.87	8.36	0.49	584.33	583.84	584.28
<b>TW-2</b>	5/23/2013	592.20	9.36	9.65	0.29	582.84	582.55	582.81
<b>TW-2</b>	6/20/2013	592.20	8.56	9.01	0.45	583.64	583.19	583.59
<b>TW-2</b>	7/25/2013	592.20	--	11.80	trace	--	580.40	580.40
<b>TW-2</b>	8/29/2013	592.20	--	10.36	--	--	581.84	581.84
<b>TW-2</b>	9/27/2013	592.20	10.79	10.83	0.04	581.41	581.37	581.40
<b>TW-2</b>	10/22/2013	592.20	10.95	11.01	0.06	581.25	581.19	581.24
<b>TW-2</b>	11/21/2013	592.20	--	11.67	trace	--	580.53	580.53
<b>TW-2</b>	12/11/2013	592.20	11.35	11.44	0.09	580.85	580.76	580.84
<b>TW-2</b>	1/15/2014	592.20	10.23	10.28	0.05	581.97	581.92	581.96
<b>TW-2</b>	2/26/2014	592.20	10.38	10.39	0.01	581.82	581.81	581.82
<b>TW-2</b>	3/25/2014	592.20	9.43	9.44	0.01	582.77	582.76	582.77
<b>TW-2</b>	5/5/2014	592.20	9.32	9.53	0.21	582.88	582.67	582.86
<b>TW-2</b>	9/19/2014	592.20	8.18	9.01	0.83	584.02	583.19	583.93
<b>TW-2</b>	12/11/2014	590.92	9.30	9.91	0.61	581.62	581.01	581.56
<b>TW-2</b>	3/9/2015	590.92	10.20	10.67	0.47	580.72	580.25	580.67
<b>TW-2</b>	6/1/2015	590.92	8.66	8.90	0.24	582.26	582.02	582.23
<b>TW-2</b>	8/5/2015	590.92	9.07	9.38	0.31	581.85	581.54	581.82
<b>TW-2</b>	1/8/2016	590.92	9.28	9.28	0.00	581.64	581.64	581.64
<b>TW-2</b>	3/18/2016	590.92	8.15	8.17	0.02	582.77	582.75	582.77

Table 1

**Hydraulic Measurements**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
TW-2	5/26/2016	590.92	8.59	8.62	0.03	582.33	582.30	582.32
TW-2	8/12/2016	590.92	9.99	10.41	0.42	580.93	580.51	580.89
TW-2	12/9/2016	590.92	8.88	8.89	0.01	582.04	582.03	582.04
TW-2	2/27/2017	590.92	8.21	8.39	0.18	582.71	582.53	582.69
TW-2	6/19/2017	590.92	8.32	8.50	0.18	582.60	582.42	582.58
TW-2	9/13/2017	590.92	9.33	9.90	0.57	581.59	581.02	581.53
TW-2	11/16/2017	590.92	9.50	9.66	0.16	581.42	581.26	581.40
TW-2	3/22/2018	590.92	7.60	7.89	0.29	583.32	583.03	583.29
TW-2	5/17/2018	590.92	5.85	6.14	0.29	585.07	584.78	585.04
TW-2	9/19/2018	590.92	9.61	9.93	0.32	581.31	580.99	581.28
TW-2	11/29/2018	590.92	(3)	(3)	(3)	(3)	(3)	(3)
TW-2	3/21/2019	590.92	7.33	7.90	0.57	583.59	583.02	583.53
TW-2	6/5/2019	590.92	6.70	6.91	0.21	584.22	584.01	584.20
TW-2	9/9/2019	590.92	9.43	9.44	0.01	581.49	581.48	581.49
TW-2	11/26/2019	590.92	8.52	8.73	0.21	582.40	582.19	582.38

Notes:

- Not present
- BTOC Below top of casing
- DTP Depth to product
- DTW Depth to water
- ft Feet
- ft amsl Feet above mean sea level
- GW Groundwater
- LNAPL Light Non-Aqueous Phase Liquid
- TOC Top of casing
- trace Trace LNAPL present on oil/water interface probe
- (1) Damaged Well
- (2) The measuring point elevation (top of casing) needs to be re-verified
- (3) Unable to access due to snow and ice
- (4) Unable to measure level - area flooded
- (5) Full with water
- (6) Unable to access due to obstructing object
- (7) Depth to water measured from ground surface. Stick up length was added
- (8) Water level is estimated, water level is too high to obtain an accurate measurement
- (9) Depth to water/LNAPL was measured from bottom of riser due to damage
- (10) Debris present. Unable to locate

Table 2

**LNAPL Thickness (Feet) Observations**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well ID	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	EX-8	EX-9	EX-10	EX-11	EX-12	EX-13	EX-14	EX-15	EX-16	EX-17	EX-18	EX-19	EX-20	EX-21	EX-22	EX-23	EX-24	EX-25	EX-26	EX-27	EX-28
April 24, 2013	--	--	0.03	--	--	--	--	--	0.02	--	--	0.01	--	--	--	--	--	--	--	--	--	0.01	--	0.01	--	--	--	
May 23, 2013	--	--	0.17	--	0.04	--	--	--	0.24	--	0.31	0.78	--	--	--	0.09	--	--	--	--	0.16	0.36	0.03	1.52	--	0.50	--	--
June 20, 2013	--	--	0.12	--	trace	--	--	--	0.19	--	0.34	0.38	--	--	--	0.08	--	--	--	--	0.15	0.64	0.03	1.90	--	0.44	trace	0.06
July 25, 2013	--	--	0.15	trace	trace	--	--	--	--	0.57	--	--	--	--	--	0.15	trace	--	--	--	0.06	--	--	--	0.42	--	0.17	
August 29, 2013	--	--	0.13	0.06	3.99	--	--	--	0.59	--	--	--	--	--	--	0.03	0.10	0.03	--	--	0.38	--	0.50	0.48	--	0.46	--	trace
September 27, 2013	--	--	0.23	0.17	--	--	--	--	0.39	0.16	0.13	1.60	--	--	--	0.22	0.14	--	--	--	0.11	0.08	0.30	0.69	--	0.52	0.31	0.12
October 22, 2013	--	--	0.24	0.23	0.52	--	--	--	0.50	0.22	0.34	1.97	--	--	--	0.28	0.14	--	--	--	0.19	0.08	0.50	1.07	--	0.65	0.66	0.11
November 21, 2013	--	--	0.19	0.10	0.00	--	--	--	0.10	0.12	--	0.02	--	--	--	0.05	0.01	--	--	--	0.03	0.20	0.09	2.35	--	0.19	0.04	0.16
December 11, 2013	--	--	0.03	--	--	--	--	--	0.01	--	0.01	--	--	--	--	--	trace	--	--	--	trace	0.11	0.02	1.02	--	0.64	--	0.12
January 15, 2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	trace	--	--	--	--	--	0.03	0.01	0.38	--	--	--	0.11
February 26, 2014	--	--	--	0.02	--	--	--	--	--	--	0.51	--	--	--	--	--	--	--	--	--	0.01	0.05	0.13	--	trace	0.07	0.11	
March 25, 2014	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--	--	0.03	0.42	--	--	--	--	--
May 5, 2014	--	--	trace	trace	0.01	--	--	--	0.01	--	trace	0.35	--	--	--	0.02	--	--	--	--	--	0.09	0.01	0.97	--	trace	--	0.01
September 19, 2014	--	--	0.06	trace	0.01	--	--	--	0.02	0.02	trace	0.26	--	--	--	0.42	trace	--	--	--	0.01	1.75	0.02	2.34	--	0.86	0.01	0.22
December 11, 2014	--	--	0.28	0.04	trace	--	--	--	0.06	0.16	0.67	2.57	--	--	--	0.63	--	--	--	--	0.15	0.46	0.46	1.10	--	0.53	0.08	0.37
March 9, 2015	--	--	0.39	0.30	0.04	--	--	--	0.20	0.28	1.30	1.90	--	--	--	0.42	--	--	--	--	0.15	0.37	0.56	0.96	--	0.68	0.20	0.22
June 1, 2015	--	--	0.02	0.02	trace	--	--	--	0.02	trace	1.23	2.20	--	--	--	0.34	--	--	--	--	0.07	0.09	0.32	0.97	--	0.03	--	0.03
August 5, 2015	--	--	trace	0.07	trace	0.02	--	--	0.02	0.12	1.75	2.56	--	--	--	0.84	--	--	--	--	0.02	trace	0.01	1.40	--	0.59	0.02	0.20
January 8, 2016	--	--	trace	0.22	trace	0.11	--	--	0.07	0.01	1.83	1.44	--	--	--	0.22	--	--	--	--	0.13	trace	0.30	1.11	--	0.25	0.17	0.05
March 18, 2016	--	--	0.21	0.13	0.01	0.12	--	--	0.13	--	1.75	0.08	--	--	--	0.26	trace	--	--	--	0.04	0.11	0.13	1.61	--	0.38	--	0.01
May 26, 2016	--	--	0.23	0.15	0.01	0.07	--	--	0.11	0.01	2.17	0.62	--	--	--	0.18	0.01	--	--	--	0.09	0.19	0.14	1.96	--	0.74	0.31	0.02
August 12, 2016	--	--	0.30	0.15	0.10	0.07	--	--	0.18	0.25	3.28	1.26	--	--	--	0.57	trace	--	--	--	trace	0.46	1.11	1.36	--	0.95	0.54	trace
December 9, 2016	--	--	trace	0.19	0.13	0.01	--	--	0.14	0.01	2.57	1.32	--	--	--	0.44	trace	trace	--	--	0.25	0.75	0.43	1.47	--	0.67	0.42	0.07
February 27, 2017	--	--	0.59	0.17	0.06	0.05	--	--	0.09	--	2.43	1.06	--	--	--	0.55	0.01	trace	--	--	0.08	0.58	0.38	1.89	--	0.10	0.31	0.20
June 19, 2017	--	--	0.63	0.18	0.07	0.01	--	--	0.31	0.07	3.36	1.75	--	--	--	0.37	0.01	0.15	--	--	0.13	0.81	0.43	1.82	--	1.11	0.70	0.17
September 13, 2017	--	--	0.57	0.55	0.31	0.03	NM	--	0.11	0.19	3.22	3.02	--	--	--	0.59	0.59	0.15	--	--	0.28	0.38	1.58	1.62	--	0.61	1.00	0.70
November 16, 2017	--	--	0.38	0.60	0.37	0.01	--	--	0.10	0.04	3.00	2.26	--	--	--	0.37	0.52	0.02	--	--	0.32	0.11	0.95	1.20	--	0.39	0.56	0.36
March 22, 2018	--	--	0.38	0.58	0.05	0.01	--	--	0.10	0.04	1.08	1.46	--	--	--	0.21	0.38	0.11	--	--	0.09	0.17	0.27	1.46	--	0.29	0.20	0.10
May 17, 2018	--	--	0.45	0.27	0.01	--	--	--	0.09	0.01	4.84	1.02	--	--	--	0.16	0.39	0.01	--	--	0.12	0.19	0.34	1.67	--	0.22	0.29	0.17
September 19, 2018	--	--	0.24	1.72	0.41	0.02	--	--	0.21	0.07	3.98	3.07	--	--	--	0.48	8.98	0.69	--	--	0.38	0.50	1.43	1.32	--	0.76	1.68	0.72
November 29, 2018	--	--	0.39	0.66	0.04	--	--	--	0.20	0.01	3.52	1.18	--	--	--	0.38	0.61	0.01	--	--	0.16	0.30	0.34	1.24	--	0.29	0.24	0.38
March 21, 2019	--	--	0.54	0.90	0.43	--	--	--	0.44	0.22	4.02	2.14	--	--	--	0.41	0.87	0.03	--	--	0.99	0.41	0.76	1.99	--	0.70	0.85	0.46
June 5, 2019	--	--	0.90	0.49	0.01	0.01	--	--																				

Table 2

**LNAPL Thickness (Feet) Observations**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well ID	EX-29	EX-30	EX-31	EX-32	EX-33	EX-34	EX-35	EX-36	MW1-08	MW2-08	MW3R-08	MW4-08	MW5-08	MW6-10	MW7-10	MW8-10	MW9-10	MW10-10	MW11-12	MW13-12	MW14-12	MW15-12	MW16-12	TW-1	TW-2		
April 24, 2013	0.29	--	0.01	0.13	--	--	--	--	--	trace	--	--	3.22	2.17	--	--	0.07	--	--	--	--	--	--	--	0.49		
May 23, 2013	--	--	0.03	--	--	--	--	--	--	trace	--	--	3.37	1.56	--	--	0.94	--	--	--	--	--	--	trace	0.29		
June 20, 2013	0.09	--	--	0.12	--	--	trace	--	--	--	--	--	3.64	2.16	--	--	0.41	--	--	--	--	--	--	trace	0.45		
July 25, 2013	0.03	--	trace	--	trace	--	--	0.01	--	--	trace	trace	--	trace	trace	--	--	0.62	--	--	--	--	--	0.04	trace		
August 29, 2013	0.46	--	0.07	10.85	0.64	--	0.64	0.73	--	--	trace	--	--	trace	trace	--	--	1.04	--	--	--	--	--	--	--		
September 27, 2013	0.62	--	0.17	--	--	--	trace	0.01	--	--	--	--	1.72	0.41	--	--	0.05	--	--	--	--	--	--	0.03	0.04		
October 22, 2013	1.01	--	0.25	--	--	--	--	--	--	trace	--	--	1.87	0.38	--	--	trace	--	--	--	--	--	--	0.05	0.06		
November 21, 2013	0.22	--	0.03	0.14	0.01	--	0.08	0.36	--	--	trace	--	--	0.40	trace	--	--	0.57	--	--	--	--	--	--	trace		
December 11, 2013	0.03	--	trace	0.12	--	--	0.02	0.17	--	--	trace	--	--	0.01	trace	--	--	0.47	--	--	--	--	--	--	trace	0.09	
January 15, 2014	0.02	--	--	0.01	--	--	trace	0.28	--	--	--	--	trace	0.15	--	--	0.35	--	--	--	--	--	--	--	trace	0.05	
February 26, 2014	0.06	--	--	0.05	--	--	0.01	0.02	--	--	--	--	0.07	0.03	--	--	--	--	--	--	--	--	--	--	trace	0.01	
March 25, 2014	trace	--	--	0.03	--	--	0.02	0.02	--	--	--	--	0.33	0.42	--	--	--	--	--	--	--	--	--	--	trace	0.01	
May 5, 2014	0.05	trace	0.04	--	--	--	0.06	0.04	--	(1)	--	--	2.13	1	--	--	--	--	--	--	--	--	--	--	trace	0.21	
September 19, 2014	trace	--	--	trace	trace	--	0.07	0.63	--	--	--	--	3.65	3.21	--	--	0.09	--	--	--	--	--	--	--	trace	0.83	
December 11, 2014	0.15	--	--	0.37	0.01	--	0.12	0.43	--	--	trace	--	--	2.73	1.98	--	--	0.12	--	--	--	--	--	--	trace	0.61	
March 9, 2015	0.27	--	0.12	0.23	trace	--	0.41	0.46	--	--	--	--	2.01	1.35	--	--	0.55	(2)	--	(2)	(2)	(2)	(2)	0.01	0.47		
June 1, 2015	0.16	--	--	0.09	--	--	0.31	0.52	--	--	--	--	2.72	1.62	--	--	0.09	--	--	--	--	--	--	--	0.01	0.24	
August 5, 2015	0.33	--	--	0.06	trace	--	0.29	0.71	--	--	--	--	3.11	2.03	--	--	0.47	--	--	--	--	--	--	--	0.01	0.31	
January 8, 2016	0.31	--	0.07	0.16	trace	--	0.32	0.52	--	--	--	--	2.57	1.35	--	--	trace	--	--	--	--	--	--	--	0.01	trace	
March 18, 2016	0.31	--	0.04	0.35	0.01	--	0.45	0.5	--	--	--	--	3.27	1.94	--	--	--	--	--	--	--	--	--	--	0.01	0.02	
May 26, 2016	0.36	--	0.01	0.46	0.22	--	0.02	0.52	--	--	--	--	4	3.14	--	--	0.1	--	--	--	--	--	--	--	0.02	0.03	
August 12, 2016	0.35	--	0.01	0.01	0.28	--	0.63	0.1	--	--	--	--	2.76	1.24	--	--	0.83	--	--	--	--	--	--	--	trace	0.42	
December 9, 2016	0.58	--	trace	0.61	0.14	--	0.32	0.77	--	--	--	--	1.46	3.05	--	--	0.28	--	--	--	--	--	--	--	trace	0.01	
February 27, 2017	0.43	--	trace	0.61	trace	--	0.32	0.77	--	--	--	--	3.45	2.52	--	--	0.13	--	--	--	--	--	--	--	0.03	0.18	
June 19, 2017	0.54	--	trace	0.48	1.24	--	0.32	0.77	--	--	--	--	5.13	3.13	--	--	0.69	--	--	--	--	--	--	--	0.05	0.18	
September 13, 2017	0.67	--	0.2	0.47	1.04	--	0.42	0.71	--	--	--	--	2.4	2.22	--	--	0.47	--	--	--	--	--	--	--	0.08	0.57	
November 16, 2017	0.66	--	0.06	0.5	0.39	--	0.4	0.55	--	--	--	--	(1)	3.06	--	--	0.46	--	(3)	--	--	--	--	--	--	0.05	0.16
March 22, 2018	0.7	--	0.03	0.53	0.34	--	0.34	0.47	--	--	--	--	(1)	2.3	--	--	0.13	--	--	--	--	--	--	--	0.62	0.29	
May 17, 2018	0.27	--	--	0.33	0.49	--	0.44	0.41	--	--	--	--	4.27	--	--	0.01	--	--	--	--	--	--	--	0.15	0.29		
September 19, 2018	0.76	--	0.01	1.74	0.68	--	0.53	0.56	--	--	--	--	1.59	1.38	--	--	0.81	--	--	--	--	--	--	--	4.84	0.32	
November 29, 2018	0.62	--	--	0.9	0.61	--	0.46	0.7	--	--	--	(4)	--	1.04	3.21	--	--	--	--	(5)	--	--	--	--	0.15	(4)	
March 21, 2019	1.09	--	--	1.34	1.41	--	0.65	0.83	--	--	(3)	--	--	5.44	--	--	--	(6)	--	--	--	--	--	--	1.06	0.57	
June 5, 2019	0.86	--	0.01	0.9	3.31	--	0.46	0.5	--	--	--	--	(1)	5.12	--	--	(6)	--	--	--	--	--	--	--	1.11	0.21	
September 9, 2019	0.63	--	0.00	0.58	0.87	--	0.01	0.53	--	--	--	--	--	0.01	1.6	--	--	0.1	--	--	--	--	--	--	0.23	0.01	
November 26, 2019	0.68	--	0.04	0.73	1.04	--	0.43	0.68	--	--	--	--	--	--	1.97	--	--	(3)	(3)	(3)	(3)	--	--	--	0.32	0.21	

Notes:

LNAPL Light Non-Aqueous Phase Liquid

-- LNAPL not present

trace Trace LNAPL present on oil/water interface probe

NM Not measured

(1) Well damaged just below ground surface. Unable to collect levels.

(2) Unable to measure level - area flooded.

(3) Water present. Unable to collect accurate reading.

(4) Unable to access due to snow and ice

(5) Unable to access due to obstructing object

(6) Unable to locate due to debris

(7) Unable to obtain reading

Table 3

**Pressure Measurements**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Gas Probe ID	GP1-12 (inches H <sub>2</sub> O)	GP2-12 (inches H <sub>2</sub> O)	GP3-12 (inches H <sub>2</sub> O)	GP4-12 (inches H <sub>2</sub> O)	GP5-12 (inches H <sub>2</sub> O)	GP6-12 (inches H <sub>2</sub> O)	GP7-12 (inches H <sub>2</sub> O)	GP8-12 (inches H <sub>2</sub> O)
4/24/2013	-10.38	0.00	0.00	-0.59	15.10	-41.00	0.68	0.44
5/23/2013	-0.50	0.00	0.00	-0.14	0.96	-1.39	0.00	-9.50
6/20/2013	-0.13	0.00	0.00	0.82	13.70	0.00	0.50	0.00
7/25/2013	0.00	0.00	0.00	-4.29	2.68	-0.94	0.00	0.00
8/29/2013	0.00	0.00	0.00	0.00	3.13	-5.10	0.00	0.11
9/27/2013	0.00	0.00	0.00	-0.52	0.00	1.69	0.00	-5.63
10/22/2013	0.00	0.00	0.00	-0.19	0.00	-8.56	0.00	0.00
11/20/2013	0.00	0.00	0.00	0.00	0.00	-0.47	0.00	0.00
12/11/2013	0.00	0.00	0.00	-5.60	0.00	0.00	0.00	-5.60
1/15/2014	-0.19	(1)	0.00	-0.61	-3.42	(2)	6.10	0.38
2/26/2014	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
3/24/2014	17.70	0.00	0.85	-4.54	-3.26	(3)	-5.75	0.00
5/5/2014	-3.53	0.00	0.00	-2.23	-3.01	-5.78	0.63	-0.48
8/15/2014	0.51	0.00	-0.66	-0.21	-2.83	-3.33	-1.02	0.00
9/19/2014	0.00	0.00	0.14	-1.72	-0.82	-1.09	-0.67	0.00
12/11/2014	0.00	4.45	-1.82	-6.18	0.00	-2.60	0.00	-4.46
3/9/2015	-0.02	0.00	-1.25	-3.8 <sup>(4)</sup>	-2.00	0.00	0.11	-2.00
6/1/2015	-0.09	0.00	0.00	0.44	-3.30	-5.71	0.50	0.18
8/5/2015	0.00	0.00	0.00	0.00	0.00	-0.32	0.00	-0.50
11/30/2015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.04
1/8/2016	0.00	0.00	-0.22	-0.33	0.26	-2.78	0.00	2.20
3/18/2016	0.01	-0.02	-0.43	-0.42	-0.05	-2.00	0.00	0.12
5/26/2016	0.00	0.00	-0.34	-0.26	0.00	-8.15	0.00	-0.77
8/12/2016	0.00	0.00	0.33	0.25	0.00	0.02	0.00	-0.21
12/9/2016	0.00	0.00	-0.44	-0.16	0.00	-2.38	0.00	-6.66
2/27/2017	0.00	0.00	-3.40	0.00	-1.74	4.24	0.00	-0.15
6/19/2017	-0.05	0.01	0.14	-0.19	-1.50	-1.37	0.02	-0.32
9/13/2017	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.00
11/16/2017	0.01	0.01	0.01	0.01	0.00	-0.02	-0.01	0.01
3/22/2018	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00
5/17/2018	0.03	0.01	0.00	0.01	0.00	--	0.02	0.01
9/17/2018	0.01	0.00	0.03	-0.01	-0.01	0.01	0.00	-0.05
9/19/2018	0.00	0.00	0.38	0.00	0.00	0.00	-0.04	(3)
11/29/2018	0.00	0.00	1.70	0.38	0.04	(3)	(5)	1.98
3/21/2019	0.44	0.02	0.38	0.12	0.15	(5)	0.02	-0.10
6/5/2019	--	--	(5)	(5)	--	(6)	(5)	(5)
9/6/2019	0.00	0.00	0.08	-0.30	-0.01	-0.54	0.00	(7)
9/9/2019	0.00	0.00	0.05	0.00	-0.15	0.01	0.00	-0.27
11/26/2019	0.00	0.00	-0.30	3.73	-0.20	-1.00	0.00	-0.20

Notes:

Pressure measurements in inches of water column (H<sub>2</sub>O)

Pressure measurements collected using a digital manometer

(1) Unable to locate due to snow and ice

(2) Unable to access due to ice

(3) Flooded. Unable to collect reading

(4) Valve was open before collecting reading

(5) Water present. Unable to collect accurate reading.

(6) Debris present. Unable to locate.

(7) Line Obstructed.

Table 4

**Methane Monitoring**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Location ID	4/26/2013				4/29/2013				5/7/2013				6/5/2013				8/30/2013				9/26/2013				10/23/2013				11/20/2013				12/16/2013				1/16/2014							
	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)												
GP1-12	0.0	2.2	17.2	3		nm			0.1	9.1	0.2	2	0.0	3.3	16.3	2	0.0	8.0	0.3	2	0.0	8.2	3.8	2	0.0	0.7	19.8	2	0.0	1.0	19.8	2	nm											
GP2-12	0.0	1.9	16.2	3		nm			0.0	5.0	5.2	2	0.0	5.2	5.5	2	0.0	6.1	10.4	2	0.0	6.3	12.9	2	0.3	3.6	16.0	2	0.0	3.2	14.7	2	nm											
GP3-12	0.0	0.0	20.7	3		nm			0.0	7.9	1.9	2	0.0	13.4	1.6	2	0.0	13.1	1.2	2	0.0	11.5	2.4	2	0.0	8.3	3.9	2	0.0	6.6	6.1	2	nm											
GP4-12		screen flooded				nm			0.0	0.8	17.0	2	0.0	10.2	8.0	2	0.0	9.7	6.7	2	0.0	6.2	13.5	2	0.0	0.0	20.7	2	0.0	0.0	20.1	2	nm											
GP5-12		screen flooded				nm			0.0	0.9	16.3	2	0.0	3.0	14.9	2	0.0	7.2	2.6	2	0.0	7.3	4.2	2	0.0	2.6	15.4	2	0.0	2.4	17.0	2	0.0	1.2	19.2	2	nm							
GP6-12		screen flooded				nm			8.3	4.5	0.1	2		nm					nm		0.0	3.4	17.3	2		nm				nm				nm										
GP7-12		screen flooded				nm			0.0	7.7	1.4	2	0.0	11.4	8.8	2	0.0	11.3	0.2	2	0.0	12.2	3.0	2	0.3	1.2	16.8	2	0.0	5.4	13.7	2	0.1	3.4	4.6	2	nm							
GP8-12	0.0	0.0	20.9	3		nm			0.0	1.7	17.7	2	0.0	0.0	20.0	2	0.0	1.8	16.0	2	0.0	0.1	20.4	4	0.0	8.9	11.1	4	0.0	6.0	5.2	2	0.0	6.0	4.4	2	nm							
MPE Exhaust	<0.1	0.0	20.8	3		nm												nm																										
EX-1		nm			0.0	3.7	4.5	2		nm			0.0	6.4	2.7	2	0.0	5.9	8.5	2	0.0	10.6	0.4	2	0.0	5.8	7.0	2	0.0	2.8	17.5	2	0.0	3.8	13.8	2	0.0	4.8	6.0	2	nm			
EX-2		nm			0.0	0.3	17.8	2		nm			0.0	2.7	11.6	2	0.0	0.1	20.2	2	0.0	9.9	0.1	2	0.0	6.2	4.6	2	0.0	9.7	3.1	2	0.0	7.2	6.2	2	0.0	4.2	12.5	2	nm			
EX-3 <sup>(7)</sup>	0.0	0.0	21.1	0	1.0	2.8	1.4	2		nm			7.2	4.2	0.0	2	2.2	3.9	5.2	2	4.9	9.5	0.0	2	6.7	8.6	0.1	2	1.1	3.9	0.1	2	0.0	0.1	19.9	2	0.0	0.1	19.5	2	nm			
EX-4 <sup>(7)</sup>		nm			4.5	0.3	11.5	2		nm			16.1	0.8	0.0	2	9.7	0.8	3.4	2	10.6	4.4	0.7	2	22.2	2.4	0.1	2	0.8	6.4	1.3	2	4.9	2.7	2.6	2	0.0	0.0	20.2	2	nm			
EX-5		nm			29.8	0.3	6.6	2		nm			11.1	3.9	0.5	2	21.8	5.0	1.6	2	11.8	6.5	0.0	2	25.9	7.6	0.0	2	0.0	0.2	18.4	2	2.9	2.5	11.6	2	0.0	0.0	20.1	2	nm			
EX-6		nm			2.3	2.5	0	0		nm			5.0	2.6	0.1	2	0.0	0.0	20.6	2	1.4	3.6	1.7	2	4.2	2.8	0.3	2	0.0	0.6	15.5	2	0.0	0.0	20.2	2	4.2	2.4	1.8	2	nm			
EX-7		nm			0.0	0.4	19.2	2		nm			0.0	4.5	6.4	2	0.0	0.7	17.4	2	0.0	10.3	0.0	2	0.0	8.5	0.3	2	0.0	5.1	10.6	2	0.0	0.0	20.0	2	0.0	0.0	19.8	2	nm			
EX-8 <sup>(7)</sup>		nm			0.0	0.0	20.3	2		nm			0.0	2.2	10.5	2	0.2	1.7	14.2	2	0.6	7.7	0.0	2	0.3	10.7	0.0	2	0.0	0.0	20.1	2	0.0	0.0	19.8	2	nm							
EX-9		nm			3.2	3.6	0	2		nm			9.1	4.4	0.1	2	5.1	3.6	7.3	2	9.6	5.2	0.0	2	13.1	5.6	0.0	2	1.3	9.3	0.0	2	1.4	5.5	0.0	2	1.0	5.2	0.0	2	nm			
EX-10 <sup>(7)</sup>		nm			1.9	1.1	5.9	2		nm			0.0	0.3	18.7	2	0.0	0.0	20.9	2	0.1	1.8	16.0	2	2.9	1.6	16.3	2	0.4	7.5	1.9	2	1.1											

**Table 4**

**Methane Monitoring**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

2/26/2014				3/24/2014				5/5/2014				8/15/2014				9/19/2014				12/11/2014				3/9/2015				6/1/2015				6/10/2015															
Location ID	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)															
GP1-12					nm				0.0	5.3	2.5		7.4	7.9	0.0	2	0.6	9.3	0.0	2	3.0	5.6	0.5	2	0.2	5.1	0.0	2	5.3	6.0	0.0	2	10.6	6.0	0.0	2											
GP2-12					0.0	1.0	13.1	2	0.0	1.9	10.5		2	0.0	6.5	4.5		0.0	6.9	10.7		2	0.0	2.5	16.1		2	0.0	4.5	15.0		2	0.0	6.2	2.2		9.7	6.8	0.0	2							
GP3-12					nm				0.0	0.2	19.6		2	nm				nm				0.0	5.3	4.1		2	0.0	9.7	5.5		2	0.0	8.4	4.9		2	0.0	9.0	5.7		2						
GP4-12					nm				nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(3)</sup>																										
GP5-12					nm				0.0	5.4	2.1		2	0.0	8.8	1.4		2	0.0	8.5	3.0		2	0.0	6.4	6.7		2	0.0	4.7	4.0		2	0.0	8.5	0.2		2	0.0	8.0	1.8		2				
GP6-12					nm				6.4	5.1	0.2		2	28.8	7.3	0.0		2	27.4	7.4	0.0		2	26.7	7.8	0.0		2																			
GP7-12					nm				0.0	3.9	0.7		2	nm				0.0	12.6	0.1		2	0.0	10.0	5.7		2	0.0	7.0	4.5		2	0.2	9.8	1.3		2	0.0	11.8	1.5		2					
GP8-12					nm				0.0	3.0	15.2		2	0.0	3.6	6.2		2	0.0	2.6	12.0		2	nm				0.0	4.6	2.0		2	0.1	1.7	12.7		2	0.0	4.3	5.6		0.5	0.0	4.5	9.5		30 seconds <sup>(8)</sup>
MPE Exhaust					nm				nm <sup>(1)</sup>				nm <sup>(1)</sup>				nm <sup>(1)</sup>				nm <sup>(1)</sup>																										
EX-1	0.0	7.4	1.4	2	0.0	6.2	0.7	2	0.0	8.7	0.0	2	2.4	10.1	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				0.0	3.1	11.5	2							
EX-2	0.0	8.3	0.0	2	0.5	7.1	0.0	2	1.1	6.4	0.2	2	9.2	5.1	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				2.3	4.6	5.3	2							
EX-3 <sup>(7)</sup>	0.2	7.1	2.3	2	0.2	5.0	5.3	2	0.0	1.0	17.7		2	9.1	1.9	4.4		nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				15.5	5.3	1.4	2						
EX-4 <sup>(7)</sup>	0.0	4.0	4.0	2	0.0	3.4	3.9	2	0.4	2.5	6.9		2	12.9	3.5	2.4		nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				9.7	3.1	8.8	2						
EX-5	0.0	0.2	19.7	2	0.0	3.1	5.0	2	0.0	1.6	14.1		2	15.2	1.2	12.2		nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				5.1	1.2	15.2	2						
EX-6	1.7	1.6	0.0	2	2.6	1.4	0.0	2	2.6	1.6	0.0	2	7.0	2.0	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				8.3	3.9	0.0	2							
EX-7	0.0	7.9	0.0	2	0.1	7.0	0.0	2	0.3	6.7	0.0	2	3.4	6.2	0.4	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				1.3	5.1	0.0	2							
EX-8 <sup>(7)</sup>	0.0	6.2	1.8	2	0.0	5.9	0.0	2	1.3	5.4	0.8	2	12.4	5.4	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				10.0	6.1	0.0	2							
EX-9	1.6	5.4	0.0	2	3.9	4.0	0.0	2	5.3	3.7	0.0	2	14.7	4.9	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				10.2	5.6	3.7	2							
EX-10 <sup>(7)</sup>	0.0	0.9	17.6	2	1.7	6.7	0.0	2	1.0	4.0	5.0		2	11.9	6.2	1.9		nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				17.5	6.0	1.8	2						
EX-11	0.4	7.8	0.0	2	0.2	1.0	16.0	2	0.0	0.9	17.8		2	0.0	0.0	20.7		2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				0.0	0.0	18.0		2	0.1	0.0	18.4		2			
EX-12	0.0	1.8	16.4	2	0.0	2.8	4.4	2	0.0	3.2	11.5		2	0.0	0.0	20.8		2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				0.1	0.1	17.7		2	0.3	0.6	17.7		2			
EX-13	0.0	7.2	2.1	2	0.0	7.0	1.1	2	0.2	6.7	0.2	2	2.2	5.8	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				0.5	6.9	0.0	2							
EX-14	0.0	5.5	0.0	2	0.7	4.5	0.0	2	1.3	3.8	0.0	2	9.7	3.3	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				5.5	3.4	2.1	2							
EX-15	0.0	2.2	13.2	2	0.4	4.3	0.3	2	1.9	3.5	0.0	2	7.2	2.4	0.7	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				9.7	4.0	0.2	2							
EX-16 <sup>(7)</sup>	1.6	7.0	0.0	2	4.4	6.1	0.0	2	6.2	5.9	0.0	2	20.6	7.1	0.2	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				24.2	5.8	0.3	2							
EX-17	3.6	3.8	0.0	2	6.7	2.4	0.0	2	8.0	3.2	0.0	2	22.4	4.1	0.1	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				0.9	0.4	17.7	2							
EX-18 <sup>(7)</sup>	4.3	1.0	0.0	2	6.3	0.4	0.0	2	8.0	0.3	0.0	2	27.3	0.2	0.0	2	nm				nm				nm <sup>(2)</sup>				nm <sup>(2)</sup>				nm <sup>(2)</sup>				24.8	3.5	1.3	2							
EX-19	0.0	6.1																																													

Table 4

**Methane Monitoring**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

8/5/2015				8/7/2015				8/27/2015				9/25/2015				11/30/2015				1/8/2016				3/18/2016				5/26/2016				8/12/2016				10/20/2016								
Location ID	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)												
GP1-12	14.2	7.1	0.2	2	16.1	6.8	0.0	2	15.6	7.0	0.0	2	14.7	7.1	0.0	2	12.2	4.8	0.0	2	0.0	5.3	0.1	2	0.0	5.2	5.2	2	0.0	1.7	1.0	2	0.0	8.6	6.0	2								
GP2-12	0.0	8.6	6.1	2	0.0	8.1	7.7	2	0.0	7.7	10.8	2	0.0	7.8	11.1	2	0.0	4.7	14.2	2	0.0	3.5	13.2	2	0.0	2.4	15.4	2	0.0	4.1	7.4	2	0.0	5.4	14.3	2								
GP3-12	0.0	13.0	3.0	2	0.0	13.6	3.1	2	0.0	14.0	3.2	2	0.0	12.5	5.3	2	0.0	6.8	6.6	2	nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(1)</sup>							
GP4-12	0.0	13.6	5.3	2	0.0	12.9	6.4	2	0.0	10.9	7.5	2	0.0	8.4	14.5	2	0.0	3.2	12.7	2	nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(1)</sup>											
GP5-12	0.0	9.4	2.0	2	0.0	8.8	0.8	2	0.0	9.0	3.0	2	0.0	9.0	3.0	2	0.0	8.1	0.5	2	0.0	6.6	1.1	2	0.0	5.6	2.1	2	0.0	6.4	1.6	2	0.0	11.4	0.0	2								
GP6-12	29.9	9.5	0.5	20 seconds <sup>(8)</sup>	32.3	9.1	0.0	2	33.3	9.1	0.0	2	32.8	8.7	0.0	2	20.0	7.1	0.0	2	30.3	5.6	2.4	30 seconds <sup>(8)</sup>	nm <sup>(3)</sup>				nm <sup>(3)</sup>				53.0				3.4				0.0			
GP7-12	0.0	16.6	0.8	2	0.0	15.8	0.9	2	0.0	15.6	0.0	2	0.0	16.4	2.7	2	0.0	13.1	1.0	2	0.0	9.8	4.2	2	0.0	7.7	7.0	2	0.0	9.7	2.2	2	0.0	13.4	2.1	2								
GP8-12	0.0	7.3	6.8	2	0.0	7.2	10.8	20 seconds <sup>(8)</sup>	0.0	5.0	3.9	30 seconds <sup>(8)</sup>	0.0	5.0	2.4	30 seconds <sup>(8)</sup>	0.1	4.3	2.3	2	0.0	4.3	2.0	2	0.0	4.2	13.9	20 seconds <sup>(8)</sup>	0.0	6.0	11.3	30 seconds <sup>(8)</sup>	0.0	3.3	6.7	2	0.0	8.0	9.6	20 seconds				
MPE Exhaust	nm <sup>(1)</sup>				nm <sup>(1)</sup>				nm <sup>(1)</sup>				nm <sup>(1)</sup>				nm <sup>(1)</sup>																											
EX-1	0.0	4.0	11.4	2	nm				nm				nm				nm				nm				nm				0.0															
EX-2	4.7	6.4	1.6	2	nm				nm				nm				nm				nm				10.2				7.8															
EX-3 <sup>(7)</sup>	4.1	6.5	5.4	2	nm				nm				nm				nm				nm				1.0				0.4															
EX-4 <sup>(7)</sup>	7.0	5.9	4.0	2	nm				nm				nm				nm				nm				1.0				0.3															
EX-5	7.3	5.0	6.9	2	nm				nm				nm				nm				nm				43.8				9.7															
EX-6	12.8	5.7	0.0	2	nm				nm				nm				nm				nm				14.4				6.7															
EX-7	3.9	5.5	0.0	2	nm				nm				nm				nm				nm				6.2				5.4															
EX-8 <sup>(7)</sup>	11.2	6.9	0.0	2	nm				nm				nm				nm				nm				0.4				0.3															
EX-9	10.3	6.4	3.9	2	nm				nm				nm				nm				nm				21.6				9.1															
EX-10 <sup>(7)</sup>	4.4	4.0	9.7	2	nm				nm				nm				nm				nm				0.4				0.2															
EX-11	0.0	0.0	19.5	2	nm				nm				nm				nm				nm				1.7				5.2															
EX-12	2.0	1.1	18.5	2	nm				nm				nm				nm				nm				32.3				9.5															
EX-13	0.6	7.5	0.0	2	nm				nm				nm				nm				nm				0.6				10.2															

Table 4

**Methane Monitoring**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

	12/9/2016				2/27/2017				6/19/2017				9/13/2017				11/16/2017				3/22/2018				5/17/2018				9/17/2018				9/19/2018				11/29/2018																																			
Location ID	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time	CH <sub>4</sub>	CO <sub>2</sub>	O <sub>2</sub>	Purge Time																																				
	(%vol)	(%vol)	(%vol)	(min)	(%vol)	(%vol)	(%vol)	(min)	(%vol)	(%vol)	(%vol)	(min)	(%vol)	(%vol)	(%vol)	(min)	(%vol)	(%vol)	(%vol)	(min)																																																				
GP1-12	0.0	5.3	13.3	2	0.0	2.8	17.1	2	0.0	8.0	8.4	1	0.0	12.1	3.9	2	0.0	6.4	9.7	2	0.0	4.0	16.6	1	0.0	5.2	1.6	1	0.0	10.1	5.9	2.0	0.0	14.5	6.3	1.0	0.2	4.2	13.2	1.0																																
GP2-12	0.0	3.2	18.6	2	0.0	1.8	18.8	2	0.1	4.7	16.2	2	0.0	7.9	13.0	2	0.0	3.2	16.1	2	0.0	2.8	17.9	1	0.0	5.1	5.1	1	0.0	5.0	14.4	1.0	0.2	3.0	19.4	1.0																																				
GP3-12	0.0	0.4	20.5	0.5	nm <sup>(3)</sup>				nm				nm				nm <sup>(3)</sup>				nm <sup>(3)</sup>																																																			
GP4-12	0.0	0.1	20.8	2	nm <sup>(3)</sup>				0.0				9.3				13.0				2				0.0				17.2				2																																							
GP5-12	0.0	6.2	4.7	2	0.0	3.3	11.9	2	0.0	7.1	4.5	2	0.0	10.1	0.4	2	0.0	8.1	1.3	2	0.0	5.2	7.0	1	0.0	10.2	0.6	1.0	0.0	14.3	1.0	1.0	0.1	5.8	8.7	1.0																																				
GP6-12	nm <sup>(3)</sup>				65.4				4.7				1.1				60.8				5.0				0.2				41.7				0.4				2																																			
GP7-12	0.0	5.8	12.8	2	0.0	5.8	10.3	2	0.1	9.5	7.5	2	0.0	13.9	16.9	2	0.0	11.7	5.5	2	0.0	3.8	12.0	2	nm				0.1				7.8				1.0				nm <sup>(3)</sup>																															
GP8-12	0.0	0.0	20.9	2	0.0	2.5	14.8	30 seconds	0.0	5.6	14.6	30 seconds	0.0	4.0	8.8	2	0.0	0.6	19.9	2	0.0	4.8	13.0	0.33	0.0	4.8	13.0	0.33	nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(3)</sup>																																			
MPE Exhaust	nm <sup>(1)</sup>				nm				nm				nm				nm				nm																																																			
EX-1	nm <sup>(1)</sup>				nm				nm				0.0				21.7				2				nm				nm				0.1				20.0				1.0				0.1				19.2																							
EX-2	nm <sup>(1)</sup>				nm				nm				1.0				12.0				22.4				2				nm				1.6				2.4				14.6				1.0				9.8				10.2				3.3															
EX-3 <sup>(7)</sup>	nm <sup>(1)</sup>				nm				nm				0.0				0.2				22.4				2				nm				nm				0.7				0.2				19.5				1.0				0.1				20.7				1.0				nm							
EX-4 <sup>(7)</sup>	nm <sup>(1)</sup>				nm				nm				0.2				0.2				22.2				2				nm				nm				nm				1.1				0.2				19.3				1.0				0.1				20.8				1.0				nm			
EX-5	nm <sup>(1)</sup>				nm				nm				17.5				2.9				14.4				2				nm				nm				22.9				2.9				12.3				1.0				63.0				11.1				2.6				nm							
EX-6	nm <sup>(1)</sup>				nm				nm				12.1				8.6				2				nm				nm				16.																																							

Table 4

**Methane Monitoring**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Location ID	3/21/2019				6/5/2019				9/6/2019				9/9/2019				9/26/2019				11/26/2019				
	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	
GP1-12	0.0	2.1	14.7	1.0	0.0	4.7	5.2	1.0	0.1	9.5	4.7	1.5	0.0	10.3	4.0	1.0	nm	0.0	5.2	10.2	1.0				
GP2-12	0.0	1.4	17.7	1.0	0.0	5.6	11.4	1.0	0.1	4.6	16.1	1.0	0.0	4.7	17.3	1.0	nm	0.0	2.4	17.0	1.0				
GP3-12	nm <sup>(3)</sup>				nm <sup>(3)</sup>				0.1	7.0	14.0	1.0	0.0	7.1	14.6	1.0	0.0	7.5	12.7	1.5	0.0	0.0	20.7	1.0	
GP4-12	nm <sup>(3)</sup>				nm <sup>(3)</sup>				0.1	4.8	16.8	1.0	0.0	5.0	17.1	1.0	0.0	7.0	13.8	2.0	0.0	0.0	20.7	1.0	
GP5-12	0.0	4.7	4.3	1.0	0.0	5.8	5.5	1.0	0.0	10.2	0.6	1.0	0.0	10.6	1.6	1.0	nm	0.0	6.6	0.8	1.0				
GP6-12	nm <sup>(3)</sup>				nm <sup>(13)</sup>				58.7	4.1	0.0	1.0	54.5	4.4	0.0	1.5	nm	64.8	2.8	0.9	1.5				
GP7-12	nm <sup>(3)</sup>				nm <sup>(3)</sup>				1.4	2.0	14.2	1.0	0.0	9.2	11.6	1.0	nm	0.0	6.1	12.5	1.0				
GP8-12	nm <sup>(3)</sup>				nm <sup>(3)</sup>				nm <sup>(14)</sup>				nm <sup>(14)</sup>				nm	0.1	0.0	20.1	1.0				
MPE Exhaust	nm																								
EX-1	nm				nm				0.0	0.1	21.0	1.0	0.0	1.5	18.9	1.0	nm				nm				
EX-2	nm				nm				0.3	0.5	19.8	1.0	2.3	6.0	8.3	1.0	nm				nm				
EX-3 <sup>(7)</sup>	nm				nm				0.3	0.2	20.7	1.0	0.0	0.1	21.3	1.0	nm				nm				
EX-4 <sup>(7)</sup>	nm				nm				0.4	0.1	20.6	1.0	0.0	0.1	21.3	1.0	nm				nm				
EX-5	nm				nm				9.5	1.0	17.8	1.0	13.3	6.0	8.0	1.0	nm				nm				
EX-6	nm				nm				0.0	0.1	20.6	2.0	0.1	0.2	21.2	1.0	nm				nm				
EX-7	nm				nm				1.4	2.0	14.2	1.0	3.4	7.4	0.5	1.0	nm				nm				
EX-8 <sup>(7)</sup>	nm				nm				0.9	0.5	18.9	1.0	0.0	0.1	21.3	1.0	nm				nm				
EX-9	nm				nm				0.4	0.6	18.9	1.0	12.3	11.4	0.5	1.0	nm				nm				
EX-10 <sup>(7)</sup>	nm				nm				2.2	0.4	19.1	1.0	0.0	0.1	21.4	1.0	nm				nm				
EX-11	nm				nm				0.0	0.1	20.1	1.0	0.4	0.2	21.3	1.0	nm				nm				
EX-12	nm				nm				0.1	0.1	20.2	2.0	13.5	1.6	16.1	1.0	0.5	0.1	21.2	2.0	nm				
EX-13	nm				nm				0.9	3.3	10.0	1.0	1.4	6.9	0.0	1.0	nm				nm				
EX-14	nm				nm				1.6	0.7	18.6	1.0	8.2	8.3	0.6	1.0	nm				nm				
EX-15	nm				nm				4.1	0.9	18.1	1.0	16.4	6.4	4.7	1.0	nm				nm				
EX-16 <sup>(7)</sup>	nm				nm				3.7	0.7	19.0	1.0	0.0	0.1	21.2	1.0	nm				nm				
EX-17	nm				nm				0.2	0.1	20.5	1.0	6.7	0.7	19.3	1.0	nm				nm				
EX-18 <sup>(7)</sup>	nm				nm				3.4	0.4	19.3	1.0	0.0	0.1	21.4	1.0	nm				nm				
EX-19	nm				nm				0.1	0.9	19.0	1.0	0.0	8.1	7.3	1.0	nm				nm				
EX-20	nm				nm				4.5	1.1	17.1	1.0	11.3	8.2	0.5	1.0	nm				nm				
EX-21 <sup>(7)</sup>	nm				nm				1.0	0.5	19.8	1.0	0.0	0.1	21.4	1.0	nm				nm				
EX-22	nm				nm				0.1	0.1	20.5	1.0	1.2	4.1	14.1	1.5	nm				nm				
EX-23	nm				nm				0.1	0.0	20.6	1.0	10.8	1.0	17.9	1.0	nm				nm				
EX-24 <sup>(7)</sup>	nm				nm				0.1	0.0	20.8	1.0	0.0	0.0	21.4	1.0	nm				nm				
EX-25	nm				nm				0.1	0.1	20.9	1.0	0.1	1.9	18.5	1.0	nm				nm				
EX-26	nm				nm				11.2	3.2	12.9	1.5	24.6	10.1	0.0	1.0	nm				nm				
EX-27	nm				nm				9.2	1.4	17.4	1.0	25.1	10.6	0.1	1.0	nm				nm				
EX-28 <sup>(7)</sup>	nm				nm				0.9	0.1	21.0	1.0	0.0	0.1	21.3	1.0	nm				nm				
EX-29	nm				nm				0.1	0.4	20.2	1.0	6.4	7.5	0.5	1.5	nm				nm				
EX-30 <sup>(7)</sup>	nm				nm																				

**Table 4**

**Methane Monitoring**  
**Quarterly Progress Report #27 (October, November, and December 2019)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

**Notes:**

- (<sup>1</sup>) Cleaned, demobilized from Site in April 2015.
- (<sup>2</sup>) To be monitored during third quarter monitoring event consistent with the Operation, Maintenance, and Monitoring (OMM) Plan.
- (<sup>3</sup>) Could not be measured due to water present.
- (<sup>4</sup>) Not included in the OMM Plan. Additional results were presented on Quarterly Progress Report figures.
- (<sup>5</sup>) Not included in the OMM Plan. Initially monitored on June 10, 2015.
- (<sup>6</sup>) Valve was closed on June 10, 2015.
- (<sup>7</sup>) Wind turbines installed on 8/27/15.
- (<sup>8</sup>) Pump stopped due to flow restriction/water present.
- (<sup>9</sup>) Gas Vents associated with the Passive Ventilation Trench installed on 12/4/15.
- (<sup>10</sup>) Broken fitting
- (<sup>11</sup>) Unable to access due to obstructing object
- (<sup>12</sup>) Under water
- (<sup>13</sup>) Unable to access due to debris
- (<sup>14</sup>) Line Obstructed.

MPE system running in advance of and/or during methane monitoring on 4/26/13, 4/29/13 and 8/30/13

Extraction wells were converted to passive gas vents during the week of 9/8 to 9/12, 2014

nm - not measured on this date

CH<sub>4</sub> - Methane

CO<sub>2</sub> - Carbon dioxide

O<sub>2</sub> - Oxygen

%vol - percent volume

min - minute

## **Attachment A.1**

## WELL INSPECTION SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS: Philip Bielak

SUPERVISOR: \_\_\_\_\_

DATE OF INSPECTION: 

1	1	2	6	1	9
(MM	DD	YY)			

 To \_\_\_\_\_

Well I.D. Number	Lock	Surface Seal	Protective Casing	Riser	Sediment	Water Level (ft. BTOC)	Well Depth (ft. BTOC)	Other Comments
MW1-08	N/A	✓	N/A	✓		8.16		
MW2-08	N/A	✓	N/A	✓		6.76		
MW3R-08	N/A	✓	N/A	✓		5.94		
MW4-08	N/A	✓	N/A	✓		8.18		
MW5-08	N/A	✓	N/A	✓		3.13		
MW6-10	N/A	✓	N/A	✓		9.25		
MW7-10	N/A	✓	N/A	✓		10.78		DTP: 8.81
MW8-10	N/A	✓	N/A	✓		8.87		

Additional Comments: \_\_\_\_\_

Notes: \_\_\_\_\_

(1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.

## WELL INSPECTION SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS: Philip Bielak

SUPERVISOR: \_\_\_\_\_

DATE OF INSPECTION: 

1	1	2	6	1	9
(MM	DD	YY)			

 To

Well I.D. Number	Lock	Surface Seal	Protective Casing	Riser	Sediment	Water Level (ft. BTOC)	Well Depth (ft. BTOC)	Other Comments
MW9-10	N/A	✓	N/A	✓		8.56		
MW10-10	N/A	✓	N/A	✓		4.73		
MW11-11	*	*	*	*		*		
MW12-11								
MW13-11	*	*	*	*		*		
MW14-11	*	*	*	*		*		
MW15-11	N/A	✓	N/A	✓		3.82		
MW16-11	N/A	✓	N/A	✓		3.05		

Additional Comments:

\* - Well riser/cap under water, level not taken.

Notes:

(1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.

## WELL INSPECTION SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS: Philip Bielak

SUPERVISOR: \_\_\_\_\_

DATE OF INSPECTION: 

1	1	2	6	1	9
(MM	DD	YY)			

 To \_\_\_\_\_

Well I.D. Number	Lock	Surface Seal	Protective Casing	Riser	Sediment	Water Level (ft. BTOC)	Well Depth (ft. BTOC)	Other Comments
TW1	N/A	✓	N/A	✓		9.19		DTP: 8.87
TW2	N/A	✓	N/A	✓		8.73		DTP: 8.52

Additional Comments: \_\_\_\_\_

Notes: \_\_\_\_\_

(1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.

## GAS PROBE INSPECTION AND MONITORING SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS: Philip Bielak SUPERVISOR: \_\_\_\_\_

DATE OF INSPECTION: 

1	1	2	6	1	9
(MM	DD	YY)			

 To

<i>Gas Probe I.D. Number</i>	<i>Lock</i>	<i>Surface Seal</i>	<i>Protective Casing (in/wc)</i>	<i>Pressure Reading</i>	<i>Time of Reading</i>	<i>Measurement Method</i>	<i>Other Comments</i>
GP-01	N/A	✓	N/A	0.00	08:10	Manometer	
GP-02	N/A	✓	N/A	0.00	08:30	Manometer	
GP-03	N/A	✓	N/A	-0.30	08:35	Manometer	
GP-04	N/A	✓	N/A	3.73	08:45	Manometer	
GP-05	N/A	✓	N/A	-0.20	09:00	Manometer	
GP-06	N/A	✓	N/A	-1.00	09:35	Manometer	**
GP-07	N/A	✓	N/A	0.00	09:55	Manometer	
GP-08	N/A	✓	N/A	-0.20	08:00	Manometer	

Additional Comments: \*\* - Lid covered with sediment able to dig out

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Notes:

- (1) Inspections will be completed quarterly during and subsequent to operation of the Multi-Phase Extraction (MPE) System for up to 10 years.

## COVER SYSTEM INSPECTION LOG

PROJECT NAME:

Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

LOCATION:

Dearborn, Michigan

PROPERTY OWNER:

City of Dearborn

PROJECT NUMBER:

48041

DATE:

1 | 2 | 0 | 6 | 1 | 9  
(MM DD YY)

INSPECTOR(S):

Al Loebach, P.E.

<i>Item</i>	<i>Inspect For</i>	<i>Action Required</i>	<i>Comments</i>
1	Cover System <sup>(1)</sup>		
	Surface Conditions <ul style="list-style-type: none"><li>- exposed geotextile fabric</li><li>- erosion and/or sloughing</li><li>- ponding of water</li><li>- established vegetative ground cover</li><li>- subsidence or settlement</li></ul>		<u>no issues</u> <u>no issues</u> <u>no issues</u> <u>no issues</u> <u>no issues</u>
2.	Stormwater Retention Area and Associated Swale, Grass-lined Ditch, and Berms <sup>(1)</sup>		
	Stormwater Management <ul style="list-style-type: none"><li>- sediment accumulation (≤6 inches in Retention Area)</li><li>- debris construction</li><li>- visible signs of erosion</li><li>- established vegetation</li><li>- signs of seepage through berms</li><li>- accumulation of trash</li></ul>		<u>no issues</u> <u>no issues</u> <u>no issues</u> <u>no issues</u> <u>no issues</u> <u>no issues</u>
3.	Other Site Systems <sup>(1)</sup>		
	Site Fencing <ul style="list-style-type: none"><li>- integrity of fence</li><li>- integrity of gates</li><li>- integrity of locks</li><li>- placement and condition of signs</li></ul>	<u>City pursuing with adjacent business</u>	<u>exist. damage, no breach along north</u> <u>no issues</u> <u>no issues</u> <u>no issues</u>

Notes:



= OK



=

Issues Present

(1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.

## TREATED WATER CONVEYANCE PIPE (UNDER GRAVEL DRIVEWAY) INSPECTION LOG

PROJECT NAME:	Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan	LOCATION:	Dearborn, Michigan												
PROPERTY OWNER:	City of Dearborn														
PROJECT NUMBER:	48041	DATE:	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>1</td><td>2</td><td>0</td><td>6</td><td>1</td><td>9</td></tr><tr><td>(MM</td><td>DD</td><td>YY)</td><td></td><td></td><td></td></tr></table>	1	2	0	6	1	9	(MM	DD	YY)			
1	2	0	6	1	9										
(MM	DD	YY)													
INSPECTOR(S):	<u>Al Loebach, P.E., City of Dearborn</u>														
Item	Inspect For	Action Required	Comments												
1  	<b>Pipe<sup>(1)</sup></b>  Condition/ Functionality	- integrity - sediment accumulation - other blockage	<hr/> <hr/> <hr/>												
			No issues												
			No issues												
			No issues												

Notes:

	= OK
X	= Issues Present

(1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.  
Photographs attached.

## **Attachment A.2**



Photo 1 – 12/06/2019 Southerly fence line looking east



Photo 2 – 12/06/2019 Westerly fence line looking south



## **City of Dearborn Site Photographs**



Photo 3 – 12/06/2019 Northerly fence line looking west



Photo 4 – 12/06/2019 Easterly fence line looking south



## City of Dearborn Site Photographs



Photo 5 – 12/06/2019 Driveway looking south



Photo 6 – 12/06/2019 Driveway looking west



## City of Dearborn Site Photographs



Photo 7 – 12/06/2019 Driveway looking north



Photo 8 – 12/06/2019 Pond looking east



## City of Dearborn Site Photographs



Photo 9 – 12/06/2019 Pond looking west



## **City of Dearborn Site Photographs**

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